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 NEWS  1           Web Page for STN Seminar Schedule - N. America
 NEWS  2  MAY 01   New CAS web site launched
 NEWS  3  MAY 08   CA/CAplus Indian patent publication number format defined
 NEWS  4  MAY 14   RDISCLOSURE on STN Easy enhanced with new search and display
                   fields
 NEWS  5  MAY 21   BIOSIS reloaded and enhanced with archival data
 NEWS  6  MAY 21   TOXCENTER enhanced with BIOSIS reload
 NEWS  7  MAY 21   CA/CAplus enhanced with additional kind codes for German
                   patents
 NEWS  8  MAY 22   CA/CAplus enhanced with IPC reclassification in Japanese
                   patents
 NEWS  9  JUN 27   CA/CAplus enhanced with pre-1967 CAS Registry Numbers
 NEWS 10  JUN 29   STN Viewer now available
 NEWS 11  JUN 29   STN Express, Version 8.2, now available
 NEWS 12  JUL 02   LEMBASE coverage updated
 NEWS 13  JUL 02   LMEDLINE coverage updated
 NEWS 14  JUL 02   SCISEARCH enhanced with complete author names
 NEWS 15  JUL 02   CHEMACTS accession numbers revised
 NEWS 16  JUL 02   CA/CAplus enhanced with utility model patents from China
 NEWS 17  JUL 16   CAplus enhanced with French and German abstracts
 NEWS 18  JUL 18   CA/CAplus patent coverage enhanced
 NEWS 19  JUL 26   USPATFULL/USPAT2 enhanced with IPC reclassification
 NEWS 20  JUL 30   USGENE now available on STN
 NEWS 21  AUG 06   CAS REGISTRY enhanced with new experimental property tags
 NEWS 22  AUG 06   BEILSTEIN updated with new compounds
 NEWS 23  AUG 06   FSTA enhanced with new thesaurus edition
 NEWS 24  AUG 13   CA/CAplus enhanced with additional kind codes for granted
                   patents
 NEWS 25  AUG 20   CA/CAplus enhanced with CAS indexing in pre-1907 records
 NEWS 26  AUG 27   Full-text patent databases enhanced with predefined
                   patent family display formats from INPADOCDB
 NEWS 27  AUG 27   USPATOLD now available on STN
 NEWS 28  AUG 28   CAS REGISTRY enhanced with additional experimental
                   spectral property data

 NEWS EXPRESS  29 JUNE 2007:  CURRENT WINDOWS VERSION IS V8.2,
               CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

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 NEWS IPC8     For general information regarding STN implementation of IPC 8

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       2061943 REVIEW/DT
L2            6 L1 AND REVIEW/DT

=> d scan
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L2    6 ANSWERS   CAPLUS  COPYRIGHT 2007 ACS on STN
CC    13-0 (Mammalian Biochemistry)
      Section cross-reference(s): 14
TI    Bile acid interactions with cholangiocytes
ST    review cholangiocyte bile acid transport signaling biliary tract disease
IT    Transport proteins
      RL: BSU (Biological study, unclassified); BIOL (Biological study)
          (ASBT (apical sodium-dependent bile acid transporter); bile acid
          transport by cholangiocytes and role of bile acids in cholangiocyte
          signaling and in biliary tract disease)
IT    Biliary tract, disease
      Signal transduction, biological
          (bile acid transport by cholangiocytes and role of bile acids in
          cholangiocyte signaling and in biliary tract disease)
IT    Bile acids
      RL: BSU (Biological study, unclassified); BIOL (Biological study)
          (bile acid transport by cholangiocytes and role of bile acids in
          cholangiocyte signaling and in biliary tract disease)
IT    Transport proteins
      RL: BSU (Biological study, unclassified); BIOL (Biological study)
          (bile acid transporter; bile acid transport by cholangiocytes and role
          of bile acids in cholangiocyte signaling and in biliary tract disease)
IT    Biological transport
          (carrier-mediated; bile acid transport by cholangiocytes and role of
          bile acids in cholangiocyte signaling and in biliary tract disease)
IT    Biliary tract
          (cholangiocyte; bile acid transport by cholangiocytes and role of bile
          acids in cholangiocyte signaling and in biliary tract disease)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
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L2    6 ANSWERS   CAPLUS  COPYRIGHT 2007 ACS on STN
CC    13-0 (Mammalian Biochemistry)
      Section cross-reference(s): 2
TI    The dorsomedial hypothalamus: a new player in thermoregulation
ST    review GABAA receptor sympathetic neurotransmission thermoregulation
      dorsomedial hypothalamus neuron; nonshivering thermogenesis body temp
      raphe pallidus preoptic area review
IT    GABA receptors
      RL: BSU (Biological study, unclassified); BIOL (Biological study)
          (GABAA; neurons of dorsomedial hypothalamus as new players in
          thermoregulation)
IT    Brain
          (hypothalamus, dorsomedial nucleus; neurons of dorsomedial
      hypothalamus
          as new players in thermoregulation)
IT    Brain
          (hypothalamus, preoptic area; neurons of dorsomedial hypothalamus as
          new players in thermoregulation)
IT    Body temperature
      Neuron
      Signal transduction, biological
      Thermoregulation, biological
          (neurons of dorsomedial hypothalamus as new players in
          thermoregulation)
IT    Thermogenesis, biological
          (nonshivering; neurons of dorsomedial hypothalamus as new players in
          thermoregulation)
IT    Brain
          (raphe pallidus nucleus; neurons of dorsomedial hypothalamus as new
          players in thermoregulation)
IT    Neurotransmission
          (sympathetic; neurons of dorsomedial hypothalamus as new players in
          thermoregulation)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
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L2    6 ANSWERS   CAPLUS  COPYRIGHT 2007 ACS on STN
CC    1-0 (Pharmacology)
TI    Drug therapy for hyperlipidemia
ST    review statin bezafibrate hyperlipidemia
IT    Hypolipemic agents
          (drug therapy for hyperlipidemia)
IT    41859-67-0, Bezafibrate  79902-63-9D, Simvastatin, derivs.
      RL: BAC (Biological activity or effector, except adverse); BSU
(Biological
      study, unclassified); THU (Therapeutic use); BIOL (Biological study);
USES
          (Uses)
          (drug therapy for hyperlipidemia)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
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L2    6 ANSWERS   CAPLUS  COPYRIGHT 2007 ACS on STN
CC    1-0 (Pharmacology)
TI    Ileal bile acid transport inhibitors as potential hypocholesterolemic
      agents
ST    review bile acid transport inhibitor hypocholesterolemic
IT    Anticholesteremic agents
      Biological transport
          (ileal bile acid transport inhibitors as potential hypocholesterolemic
          agents)
IT    Bile acids
      RL: BPS (Biological process); BSU (Biological study, unclassified); BIOL
      (Biological study); PROC (Process)
          (ileal bile acid transport inhibitors as potential hypocholesterolemic
          agents)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
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L2    6 ANSWERS   CAPLUS  COPYRIGHT 2007 ACS on STN
CC    14-0 (Mammalian Pathological Biochemistry)
TI    Bile acid dysfunction in the cystic fibrosis intestine
ST    review bile acid dysfunction cystic fibrosis taurocholic acid
IT    Cystic fibrosis
      Disease models
      Intestine
      Mus musculus
          (absence of secretory response to bile acids and lower taurocholic
      acid
          reuptake in ileum indicating bile acid dysfunction in intestine and
          absence of bile acid-induced secretion can leads to meconium ileus in
          mouse model of cystic fibrosis)
IT    Bile acids
      RL: ADV (Adverse effect, including toxicity); BSU (Biological study,
      unclassified); BIOL (Biological study)
          (absence of secretory response to bile acids in intestine and lower
          taurocholic acid reuptake in ileum indicating bile acid dysfunction in
          intestine and absence of bile acid-induced secretion can leads to
          meconium ileus in mouse model of CF)
IT    Absorption
          (active Na+ -dependent absorption of bile acids in ileum is impaired
      in
          transgenic mouse model of cystic fibrosis)
IT    Mast cell
          (secretory response to bile acid involving activation of mast cells
          that releases secretory stimulants including histamine and 5-HT is
          absent in transgenic mouse model of cystic fibrosis)
IT    81-24-3, Taurocholic acid
      RL: ADV (Adverse effect, including toxicity); BSU (Biological study,
      unclassified); BIOL (Biological study)
          (absence of secretory response to bile acids and lower taurocholic
      acid
          reuptake in ileum indicating bile acid dysfunction in intestine and
          absence of bile acid-induced secretion can leads to meconium ileus in
          mouse model of cystic fibrosis)
IT    50-67-9, 5-Hydroxytryptamine, biological studies
      RL: BSU (Biological study, unclassified); BIOL (Biological study)
          (secretory response to bile acid involving activation of mast cells
          that releases secretory stimulant including 5-HT is absent in
          transgenic mouse model of cystic fibrosis)
IT    51-45-6, Histamine, biological studies
      RL: BSU (Biological study, unclassified); BIOL (Biological study)
          (secretory response to bile acid involving activation of mast cells
          that releases secretory stimulant including histamine is absent in
          transgenic mouse model of cystic fibrosis)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
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L2    6 ANSWERS   CAPLUS  COPYRIGHT 2007 ACS on STN
CC    1-0 (Pharmacology)
TI    Bile acid reabsorption inhibitors (BARI): novel hypolipidemic drugs
ST    review bile acid reabsorption inhibitor hypolipidemic drug
IT    Hyperlipidemia
      Hypolipemic agents
      Resorption, animal
          (bile acid reabsorption inhibitors (BARI) as novel hypolipidemic
      drugs)
IT    Bile acids
      RL: BSU (Biological study, unclassified); BIOL (Biological study)
          (bile acid reabsorption inhibitors (BARI) as novel hypolipidemic
      drugs)
IT    Transport proteins
      RL: BSU (Biological study, unclassified); BIOL (Biological study)
          (bile acid transporter, inhibitors; bile acid reabsorption inhibitors
          (BARI) as novel hypolipidemic drugs)
IT    Circulation
          (enterohepatic; bile acid reabsorption inhibitors (BARI) as novel
          hypolipidemic drugs)
IT    57-88-5, Cholest-5-en-3-ol (3β)-, biological studies
      RL: BSU (Biological study, unclassified); BIOL (Biological study)
          (blood, homeostasis; bile acid reabsorption inhibitors (BARI) as noval
          hypolipidemic drugs)

ALL ANSWERS HAVE BEEN SCANNED
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=> d cbib abs 1-6

L2 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
2007:255158 Document No. 146:416426 The dorsomedial hypothalamus: a new player in thermoregulation. DiMicco, Joseph A.; Zaretsky, Dmitry V. (Department of Pharmacology and Toxicology, Indiana University School of Medicine, Indianapolis, IN, USA). American Journal of Physiology, 292(1, Pt. 2), R47-R63 (English) 2007. CODEN: AJPHAP. ISSN: 0002-9513. Publisher: American Physiological Society.

AB A review. Neurons in the dorsomedial hypothalamus (DMH) play key roles in physiol. responses to exteroceptive ("emotional") stress in rats, including tachycardia. Tachycardia evoked from the DMH as seen in experimental stress in rats is blocked by microinjection of the GABAA receptor agonist muscimol into the rostral raphe pallidus (rPP), an important thermoregulatory site in the brain stem, whose disinhibition elicits sympathetically mediated activation of brown adipose tissue (BAT) and cutaneous vasoconstriction in the tail. Disinhibition of neurons in the DMH also elevates core temperature in conscious rats and sympathetic activity to least significant difference interscapular BAT (IBAT) and IBAT temperature in anesthetized preps. The latter effects are blocked by microinjection of muscimol into the rPP, while microinjection of muscimol into either the rPP or DMH suppresses increases in sympathetic nerve activity to IBAT, IBAT temperature, and core body temperature elicited either by microinjection of PGE2 into the preoptic area (an experimental model for fever), or central administration of fentanyl. Neurons concentrated in the dorsal region of the DMH project directly to the rPP, a location corresponding to that of neurons transsynaptically labeled from IBAT. Thus these neurons control nonshivering thermogenesis in rats, and their activation signals its recruitment in diverse experimental paradigms. Evidence also points to a role for neurons in the DMH in thermoregulatory cutaneous vasoconstriction, wakefulness, and endocrine adjustments. These directions provide intriguing avenues for future exploration that may expand our understanding of the DMH as an important hypothalamic site for the integration of autonomic, endocrine, and behavioral responses to diverse challenges.

L2 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
2006:700425 Document No. 146:247773 Bile acid interactions with cholangiocytes. Xia, Xuanmin; Francis, Heather; Glaser, Shannon; Alpini, Gianfranco; LeSage, Gene (University of Texas at Houston Medical School, Houston, TX, USA). World Journal of Gastroenterology, 12(22), 3553-3563 (English) 2006. CODEN: WJGAF2. ISSN: 1007-9327. Publisher: World Journal of Gastroenterology.

AB A review. Cholangiocytes are exposed to high concns. of bile acids at their apical membrane. A selective transporter for bile acids, the apical sodium bile acid cotransporter (ASBT) (also referred to as ileal sodium bile acid cotransporter, gene name Slc10a2) is localized at the cholangiocyte apical membrane. On the basolateral membrane, four transport systems have been identified (t-ASBT, multidrug resistance (MDR)3, an unidentified anion exchanger system and organic solute transporter (Ost) heteromeric transporter, Ostalpha-Ostbeta). Together, these transporters unidirectionally move bile acids from the portal bile to the circulation. Bile acids absorbed by cholangiocytes recycle via the peribiliary plexus back to hepatocytes for re-secretion into bile. This recycling of bile acids between hepatocytes and cholangiocytes is referred to as the cholehepatic shunt pathway. Recent studies suggest that the cholehepatic shunt pathway may contribute to overall hepatobiliary transport of bile acids and to the adaptation to chronic cholestasis due to extrahepatic obstruction. ASBT is acutely regulated by an adenosine 3', 5'-monophosphate (cAMP)-dependent translocation to the apical membrane and by phosphorylation-dependent ubiquitination and proteasome degradation. ASBT is chronically regulated by changes in gene expression in response to biliary bile acid concentration and inflammatory cytokines. Another potential function of cholangiocyte ASBT is to allow cholangiocytes to sample biliary bile acids in order to activate intracellular signaling pathways. Bile acids trigger changes in intracellular calcium, protein kinase C (PKC), phosphoinositide 3-kinase (PI3K), mitogen-activated protein (MAP) kinase and extracellular signal-regulated protein kinase (ERK) intracellular signals. Bile acids significantly alter cholangiocyte secretion, proliferation and survival. Different bile acids have differential effects on cholangiocyte intracellular signals, and in some instances trigger opposing effects on cholangiocyte secretion, proliferation and survival. Based upon these concepts and observations, the cholangiocyte has been proposed to be the principle target cell for bile acids in the liver.

L2 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
2006:476465 Document No. 145:55257 Bile acid reabsorption inhibitors (BARIs): novel hypolipidemic drugs. Kramer, Werner; Glombik, Heiner (TD Metabolism, Sanofi-Aventis Deutschland GmbH, Frankfurt am Main, 65926, Germany). Current Medicinal Chemistry, 13(9), 997-1016 (English) 2006. CODEN: CMCHE7. ISSN: 0929-8673. Publisher: Bentham Science Publishers Ltd..

AB A review. The enterohepatic circulation of bile acids is a major regulator of serum cholesterol homeostasis. After biosynthesis from cholesterol in the liver, bile acids are secreted with bile into the lumen of the small intestine to aid in the digestion and absorption of fat and fat-soluble vitamins. The bile acids are nearly quant. reabsorbed in the terminal ileum by a Na+-dependent transport system (IBAT) and are transported with portal blood to the liver and taken up by a second Na+/bile acid cotransporter (LBAT) to be resecreted into bile. In the liver bile acids inhibit the rate-limiting enzyme for the conversion of cholesterol into bile acid: cholesterol-7-alpha-hydroxylase; interruption of the enterohepatic circulation of bile acids with this feedback inhibition and leads to an upregulation of hepatic LDL-receptors with a concomitant decrease of serum LDL-levels. Specific inhibitors of the ileal bile acid transporter belonging to different chemotypes have been developed in recent years for this purpose, some now entering clin. stages. To exert a profound systemic effect these compds. do not need to be available systemically but can act from the luminal side of the small intestine, which offers the advantage to avoid the well-known adverse side effects of other hypolipidemic drugs (like statins due to metabolism and drug-drug interactions in the liver. This implies several aspects in compound optimization and drug development quite different from standard procedures, for example the concept of low absorption drugs was established to avoid systemic side effects. This review article covers the mechanistic and therapeutic principles of the approach and presents an overview on the mol. target, the discovery of specific inhibitors and resp. optimization strategies.

L2 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
2005:619201 Document No. 143:456954 Bile acid dysfunction in the cystic fibrosis intestine. Northcastle, Jacqueline Taylor, Christopher J. (Department of Biomedical Science, University of Sheffield, Sheffield, UK). Progress in Cystic Fibrosis Research, 29-64. Editor(s): Harrison, Margaret A. Nova Science Publishers, Inc.: Hauppauge, N. Y. (USA). ISBN: 1-59454-232-5 (English) 2005. CODEN: 69HBAU.

AB A review. Cystic fibrosis (CF) is characterised by defective epithelial transport. In the intestine this affects both absorption and secretion. Bile acids are released into the duodenum where they facilitate processing of dietary fat with subsequent reabsorption in the terminal ileum where 95% of bile salts are actively reabsorbed via the Na+-dependent ileal bile acid transporter (IBAT). Bile acid dysfunction has been well described in CF suggesting that the handling of bile acids by the intestine is affected by the disease. Bile acid function in the CF intestine was therefore investigated using a transgenic mouse model in which the ΔF508 mutation, which is expressed in approx. 70% of CF chromosomes, was introduced into the CF gene. Mucosal application of bile acids caused a biphasic increase in the short-circuit current (ISC) generated by ileal sheets from normal and wild-type mice. The initial phase was Na+-dependent, but unaffected by the Cl- channel blocker DPC, the NKCC inhibitor furosemide or the absence of Cl-, suggesting that it reflected the activity of the IBAT. The second phase represented bile acid-induced secretion as it was Na+-independent, but was inhibited by DPC, furosemide or absence of Cl-. In more proximal regions of intestine and when applied serosally bile acids induced a monophasic secretory response. The secretory response involved the activation of mast cells that released secretory stimulants including histamine and 5-HT. In the case of taurocholic acid, but not ursodeoxycholic acid, a neural component was also present. In tissues from CF mice the secretory response to bile acids was absent in all regions of the intestine and the absorptive component in the ileum was reduced. Absorption of taurocholic acid was assessed directly in everted sacs of intestine. In ileal sacs from normal and wild-type mice active, Na+-dependent bile acid uptake was demonstrated. In CF ileum taurocholic acid uptake was significantly lower, but this difference was not evident in brush-border membrane vesicles, suggesting that an intracellular component was required for this effect. In jejunum and mid-intestine taurocholic acid uptake was passive and there was no difference between wild-type and CF tissues. These studies confirm that bile acid function in the intestine is disturbed in CF. The absence of bile acid-induced secretion in CF may contribute to the dehydration of the luminal contents that can lead to the development of obstructive symptoms such as meconium ileus. Impaired reabsorption of bile acids by the terminal ileum could result in the excessive accumulation of these potentially toxic compds. in the intestinal lumen.

L2 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
2000:452001 Document No. 133:31704P Ileal bile acid transport inhibitors as potential hypocholesterolemic agents. Hoover, Michael; Ashbeny, Cynthia (Gel Tex Pharmaceuticals Inc, Waltham, MA, 02451, USA). Current Opinion in Cardiovascular, Pulmonary & Renal Investigational Drugs, 2(3), 209-215 (English) 2000. CODEN: CCPYFK. ISSN: 1361-1402. Publisher: PharmaPress Ltd.

AB A review with 54 refs. A review with 54 refs. is presented regarding the possible use of ileal bile acid transport (IBAT) inhibitors as hypocholesterolemic agents. IBAT inhibitors represent a novel class of potential hypolipidemic agents. The earliest compds. were simply derivs. of endogenously occurring bile acids, and are apparently no longer being pursued. The newer generation of IBAT inhibitors includes small mols. such as benzothiazepines, benzothiepines and lignan derivs. The inhibition of IBAT causes a depletion of the hepatic cholesterol pool and a subsequent lowering of plasma cholesterol by a mechanism that is similar to the diversion of bile acids by partial ileal bypass. However, the introduction of an increased concentration of bile acids into the colon as a result of IBAT inhibition can have deleterious side effects, including diarrhea and a theor. increased risk of colon cancer. In addition, the ability of the colon to reabsorb a portion of the bile acid pool limits the efficacy of IBAT inhibition therapy. Thus, co-therapy with a bile acid sequestrant may be indicated. IBAT inhibitors represent a class of compds. that may be used either as adjunct therapy for statin users or as an alternative for statin non-responders.

L2 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
2000:65572 Document No. 133:26402 Drug therapy for hyperlipidemia. Yamashita, Shinzoya (Grad. Sch. Med., Osaka Univ., Japan). Molecular Medicine (Tokyo), Volume Date 2000, 37(1), 93-98 (Japanese) 1999. CODEN: MOLMEL. ISSN: 0919-6552. Publisher: Nakayama Shoten.

AB A review with 24 refs. The results of recent mega-trials for hyperlipidemia drugs are summarized including statin study and pravastatin study. The anti-hyperlipidemia drugs under development are introduced. Statin drugs and fibrate drugs are being developed as the same action mechanism of lovastatin drugs. The drugs with novel action mechanisms are also under development; novel inhibitor on the cholesterol metabolic pathway, e.g., acylcholesterol acyltransferase (ACAT) inhibitors, cholesterol absorption inhibitors, ileum bile acid transporter (IBAT) inhibitors and microsomal triglyceride transfer protein (MTP) inhibitors. The future of hyperlipidemia therapy are discussed including blood cholesterol level.

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NEWS 4	MAY 14	RDISCLOSURE on STN Easy enhanced with new search and display fields
NEWS 5	MAY 21	BIOSIS reloaded and enhanced with archival data
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                  spectral property data

 NEWS EXPRESS  29 JUNE 2007:  CURRENT WINDOWS VERSION IS V8.2,
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DICTIONARY FILE UPDATES:  28 AUG 2007  HIGHEST RN 945714-55-6

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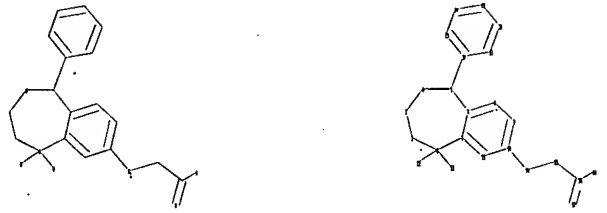

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chain nodes :
12  13  14  15  16  17  24
ring nodes :
1  2  3  4  5  6  7  8  9  10  11  18  19  20  21  22  23
chain bonds :
1-12  1-13  5-18  10-14  14-15  15-16  16-17  16-24
ring bonds :
1-2  1-7  2-3  3-4  4-5  5-6  6-7  6-8  7-11  8-9  9-10  10-11  18-19  18-23  19-20
 20-21  21-22  22-23
exact/norm bonds :
1-2  1-7  1-12  1-13  2-3  3-4  4-5  5-6  10-14  14-15  16-17  16-24
exact bonds :
5-18  15-16
normalized bonds :
6-7  6-8  7-11  8-9  9-10  10-11  18-19  18-23  19-20  20-21  21-22  22-23
```

```
G1:O,S

Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom
11:Atom  12:CLASS  13:CLASS  14:CLASS  15:CLASS  16:CLASS  17:CLASS  18:Atom
19:Atom  20:Atom  21:Atom  22:Atom  23:Atom  24:CLASS



L1      STRUCTURE UPLOADED

=> FIL STNGUIDE
FILE 'STNGUIDE' ENTERED AT 11:42:39 ON 29 AUG 2007
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Aug 24, 2007 (20070824/UP).

=>
Connection closed by remote host

Connecting via Winsock to STN



Welcome to STN International!  Enter x:X

LOGINID:SSPTADKO1625

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1         Web Page for STN Seminar Schedule - N. America
 NEWS  2  MAY 01 New CAS web site launched
 NEWS  3  MAY 08 CA/CAplus Indian patent publication number format defined
 NEWS  4  MAY 14 RDISCLOSURE on STN Easy enhanced with new search and display
                 fields
 NEWS  5  MAY 21 BIOSIS reloaded and enhanced with archival data
 NEWS  6  MAY 21 TOXCENTER enhanced with BIOSIS reload
 NEWS  7  MAY 21 CA/CAplus enhanced with additional kind codes for German
                 patents
 NEWS  8  MAY 22 CA/CAplus enhanced with IPC reclassification in Japanese
                 patents
 NEWS  9  JUN 27 CA/CAplus enhanced with pre-1967 CAS Registry Numbers
 NEWS 10  JUN 29 STN Viewer now available
 NEWS 11  JUN 29 STN Express, Version 8.2, now available
 NEWS 12  JUL 02 LEMBASE coverage updated
 NEWS 13  JUL 02 LMEDLINE coverage updated
 NEWS 14  JUL 02 SCISEARCH enhanced with complete author names
 NEWS 15  JUL 02 CHEMCATS accession numbers revised
```



```
 NEWS 16  JUL 02 CA/CAplus enhanced with utility model patents from China
 NEWS 17  JUL 16 CAplus enhanced with French and German abstracts
 NEWS 18  JUL 18 CA/CAplus patent coverage enhanced
 NEWS 19  JUL 26 USPATFULL/USPAT2 enhanced with IPC reclassification
 NEWS 20  JUL 30 USGENE now available on STN
 NEWS 21  AUG 06 CAS REGISTRY enhanced with new experimental property tags
 NEWS 22  AUG 06 BEILSTEIN updated with new compounds
 NEWS 23  AUG 06 FSTA enhanced with new thesaurus edition
 NEWS 24  AUG 13 CA/CAplus enhanced with additional kind codes for granted
                 patents
 NEWS 25  AUG 20 CA/CAplus enhanced with CAS indexing in pre-1907 records
 NEWS 26  AUG 27 Full-text patent databases enhanced with predefined
                 patent family display formats from INPADOCDB
 NEWS 27  AUG 27 USPATOLD now available on STN
 NEWS 28  AUG 28 CAS REGISTRY enhanced with additional experimental
                 spectral property data

 NEWS EXPRESS  29 JUNE 2007:  CURRENT WINDOWS VERSION IS V8.2,
               CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 16:25:08 ON 29 AUG 2007

=>
Uploading
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Do you want to switch to the Registry File?
Choice (Y/n):
Switching to the Registry File...
Some commands only work in certain files.  For example, the EXPAND
command can only be used to look at the index in a file which has an
index.  Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of
commands which can be used in this file.

=> FILE REGISTRY

FILE 'REGISTRY' ENTERED AT 16:25:17 ON 29 AUG 2007
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Property values tagged with IC are from the ZIC/VINITI data file
```

provided by InfoChem.

STRUCTURE FILE UPDATES: 28 AUG 2007 HIGHEST RN 945714-55-6
DICTIONARY FILE UPDATES: 28 AUG 2007 HIGHEST RN 945714-55-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

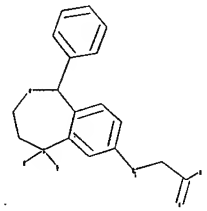
TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

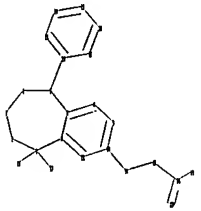
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\10546005structure.str





chain nodes :
12 13 14 15 16 17 24
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 18 19 20 21 22 23

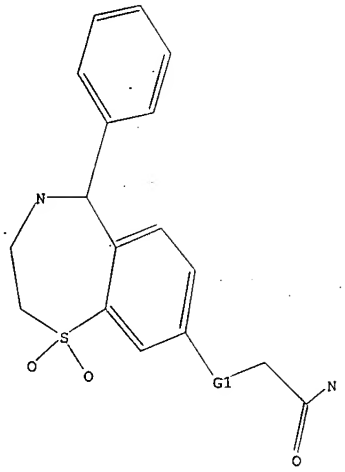
chain bonds :
1-12 1-13 5-18 10-14 14-15 15-16 16-17 16-24
ring bonds :
1-2 1-7 2-3 3-4 4-5 5-6 6-7 6-8 7-11 8-9 9-10 10-11 18-19 18-23 19-20 20-21 21-22 22-23
exact/norm bonds :
1-2 1-7 1-12 1-13 2-3 3-4 4-5 5-6 10-14 14-15 16-17 16-24
exact bonds :
5-18 15-16
normalized bonds :
6-7 6-8 7-11 8-9 9-10 10-11 18-19 18-23 19-20 20-21 21-22 22-23

G1:O,S

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:Atom
19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:CLASS

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



G1 O,S

Structure attributes must be viewed using STN Express query preparation.

```
=> s l1
SAMPLE SEARCH INITIATED 16:25:42 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -       18 TO ITERATE

100.0% PROCESSED       18 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          106 TO      614
PROJECTED ANSWERS:               0 TO        0

L2            0 SEA SSS SAM L1

=> FIL STNGUIDE
FILE 'STNGUIDE' ENTERED AT 16:26:00 ON 29 AUG 2007
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Aug 24, 2007 (20070824/UP).

=>
Uploading
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Do you want to switch to the Registry File?
Choice (Y/n):
Switching to the Registry File...
Some commands only work in certain files.  For example, the EXPAND
command can only be used to look at the index in a file which has an
index.  Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of
commands which can be used in this file.

=> FILE REGISTRY

FILE 'REGISTRY' ENTERED AT 16:27:12 ON 29 AUG 2007
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STRUCTURE FILE UPDATES:   28 AUG 2007  HIGHEST RN 945714-55-6
DICTIONARY FILE UPDATES:  28 AUG 2007  HIGHEST RN 945714-55-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

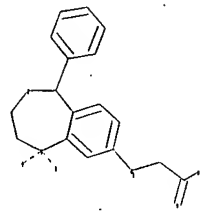
TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

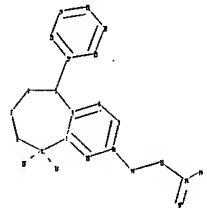
  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.
```


REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

```
=>
Uploading C:\Program Files\Stnexp\Queries\10546005set.str
```





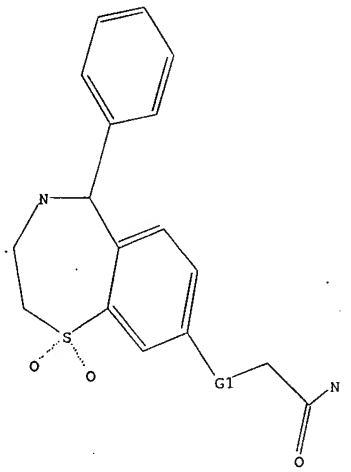
```
chain nodes :
12  13  14  15  16  17  24
ring nodes :
1  2  3  4  5  6  7  8  9  10  11  18  19  20  21  22  23
chain bonds :
1-12  1-13  5-18  10-14  14-15  15-16  16-17  16-24
ring bonds :
1-2  1-7  2-3  3-4  4-5  5-6  6-7  6-8  7-11  8-9  9-10  10-11  18-19  18-23  19-20
 20-21  21-22  22-23
exact/norm bonds :
1-2  1-7  1-12  1-13  2-3  3-4  4-5  5-6  10-14  14-15  16-17  16-24
exact bonds :
5-18  15-16
normalized bonds :
6-7  6-8  7-11  8-9  9-10  10-11  18-19  18-23  19-20  20-21  21-22  22-23
```

G1:O,S

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:Atom
19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:CLASS

L3 STRUCTURE UPLOADED

=> d l3
L3 HAS NO ANSWERS
L3 STR



G1 O,S

Structure attributes must be viewed using STN Express query preparation.

=> s l3
SAMPLE SEARCH INITIATED 16:27:27 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 18 TO ITERATE

100.0% PROCESSED 18 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 106 TO 614
PROJECTED ANSWERS: 0 TO 0

L4 0 SEA SSS SAM L3

=> s l3 full
FULL SEARCH INITIATED 16:27:35 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 331 TO ITERATE

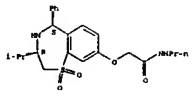
100.0% PROCESSED 331 ITERATIONS 23 ANSWERS
SEARCH TIME: 00.00.01

L5 23 SEA SSS FUL L3

=> d scan

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Acetamide, N-propyl-2-[[(3R,5S)-2,3,4,5-tetrahydro-3-(1-methylethyl)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-x-yl]oxy]-,rel- (9CI)
MF C23 H30 N2 O4 S

Relative stereochemistry.

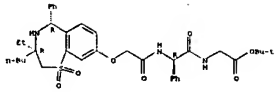


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):200

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Glycine, (2S)-N-[[(3S,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]acetyl]-2-phenylglycyl-, 1,1-dimethylethyl ester (9CI)
MF C37 H47 N3 O7 S

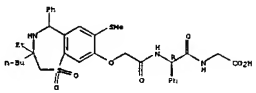
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Glycine, (2R)-N-[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-4-yl]oxy]acetyl]-2-phenylglycyl- (9CI)
MF C34 H41 N3 O7 S2

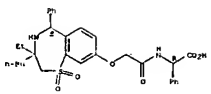
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Benzeneacetic acid, a-[[[[(5S)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino]-, (aR)- (9CI)
MF C31 H36 N2 O6 S

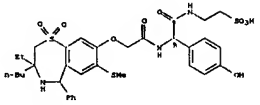
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Ethanesulfonic acid, 2-[[(2R)-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-4-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]-(9CI)
MF C34 H43 N3 O9 S3
CI COM

Absolute stereochemistry.

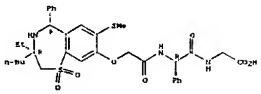


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Glycine, (2R)-N-[[(3S,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-4-yl]oxy]acetyl]-2-phenylglycyl-, compd. with N-ethylethanamine (1:1) (9CI)
MF C34 H41 N3 O7 S2 . C4 H11 N

CM 1

Absolute stereochemistry.



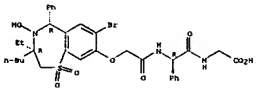
CM 2

$H_3C-CH_2-NH-CH_2-CH_3$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Glycine, (2R)-N-[[(3S,5R)-7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI)
MF C33 H38 Br N3 O8 S

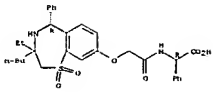
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Benzeneacetic acid, a-[[[[(5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino]-, (aR)- (9CI)
MF C31 H36 N2 O6 S

Absolute stereochemistry.

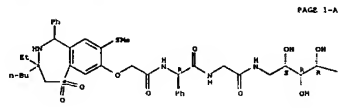


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN D-Glucitol, 1-[[(2R)-N-[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl]glycyl]amino]-1-deoxy- (9CI)
MF C40 H54 N4 O11 S2

Absolute stereochemistry.

PAGE 1-A

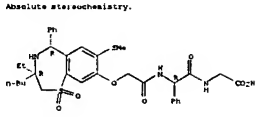


PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Glycine, (2R)-N-[[(3R,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI)
MF C38 N41 N3 O7 S2
CI COM

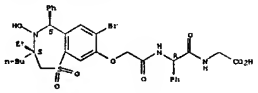
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Glycine, (2R)-N-[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-hydroxy-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI)
MF C33 H38 Br N3 O8 S

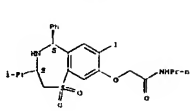
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Acetamide, N-propyl-2-[[(3R,5R)-2,3,4,5-tetrahydro-7-iodo-3-(1-methylethyl)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]-,rel- (9CI)
MF C23 H29 I N2 O4 S

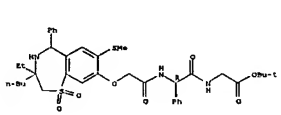
Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Glycine, (2R)-N-[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, 1,1-dimethylethyl ester (9CI)
MF C38 H49 N3 O7 S2

Absolute stereochemistry.

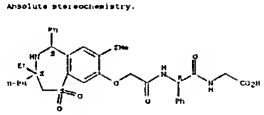


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Glycine, (2R)-N-[[(3R,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, compd. with N-ethylethanamine (1:1) (9CI)
MF C34 N41 N3 O7 S2 , C4 H11 N

CM 1

Absolute stereochemistry.

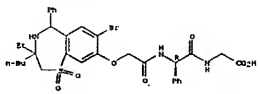


CM 2

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Glycine, (2R)-N-[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-(9CI)
MF C33 H38 Br N3 O7 S

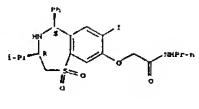
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Acetamide, N-propyl-2-[[(3R,5S)-2,3,4,5-tetrahydro-7-iodo-3-(1-methylethyl)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]-,rel- (9CI)
MF C23 H29 I N2 O4 S

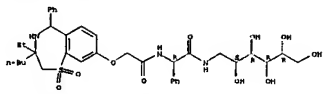
Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN D-Glucitol,
1-[[(2S)-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]-1-deoxy- (9CI)
MF C37 H49 N3 O10 S

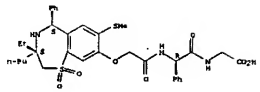
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Glycine, (2S)-N-[[[(3S,5S)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI)
MF C34 H41 N3 O7 S2
CI COM

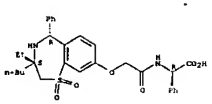
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Benzeneacetic acid, α-[[[[(3S,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino]-, (αR)- (9CI)
MF C31 H36 N2 O6 S

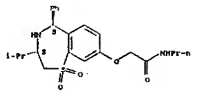
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Acetamide, N-propyl-2-[[(3R,5R)-2,3,4,5-tetrahydro-3-(1-methylethyl)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]-,rel- (9CI)
MF C23 H30 N2 O4 S

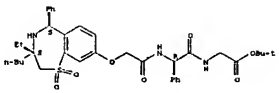
Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Glycine,
(2R)-N-[[[(3S,5S)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, 1,1-dimethylethyl ester (9CI)
MF C37 H47 N3 O7 S

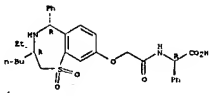
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Benzeneacetic acid, α-[[[[(3R,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino]-, (αR)- (9CI)
MF C31 H36 N2 O6 S

Absolute stereochemistry.

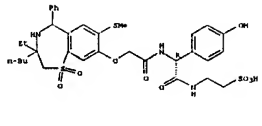


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

L5 23 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Ethanesulfonic acid, 2-[[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]-, monoammonium salt (9CI)
MF C34 H43 N3 O9 S3 . H3 N

Absolute stereochemistry.



● NH_3

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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L5          23 S L3 FULL

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=> s l5
L6           3 L5

=> d cbib abs hitstr
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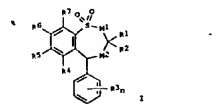
L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
2004:740309 Document No. 141:260796 Preparation of benzothiazepine and benzothiepine derivatives as ileal bile acid transport (IBAT) inhibitors. Starke, Ingemar; Alenfall, Suzanne; Nordberg, Mats Peter; Dahlstrom, Mikael Ulf Johan; Bostrom, Stig Jonas; Lamuraji, Malin Anita; Wallberg, Andreas Christer (Astrazeneca AB, Swed.; Astrazeneca UK Limited). PCT Int. Appl. WO 2004067530 A1 20040812, 77 pp. DESIGNATED STATE(S): W: AE, AG, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BW, BY, BY, BZ, BZ, CA, CH, CH, CN, CO, CO, CR, CU, CU, CZ, CZ, DE, DK, DK, DM, DE, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KG, KG, KP, KP, KR, KR, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, TR. (English). CODEN: PIXD2. APPLICATION: WO 2004-GB55 20040223. PRIORITY: GB 2003-4194 20030225.

GI



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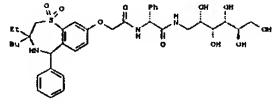


II

AB Title compds. represented by the formula I (wherein R1, R2 = H, alkyl, alkenyl; R3 = halo, nitro, cyano, amino, etc.; R5, R6 = independently H, hydroxy, (un)substituted carbamoylalkyloxy, etc.; R4, R7 = independently H, halo, mercapto, alkenyl, etc.; M1, M2 = independently (un)substituted carbon or amino; n = 0-5; and pharmaceutically acceptable salts, solvates, solvates of such a salt or a prodrug thereof) were prepared as ileal bile

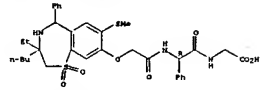
L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

PAGE 1-B

IT 501663-83-8P 753010-66-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of benzothiazepine and benzothiepine derivs. as ileal bile acid transport (IBAT) inhibitors)

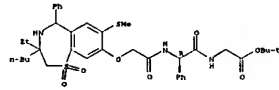
RN 501663-83-8 CAPLUS
CN Glycine, (2R)-N-[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl)oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 753010-66-1 CAPLUS
CN Glycine, (2R)-N-[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl)oxy]acetyl]-2-phenylglycyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

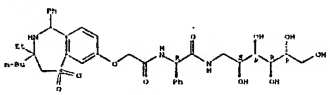


L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
acid transport (IBAT) inhibitors. For example, reaction of (2S)-trans-1,1-Dioxo-3-ethyl-3-butyl-5-phenyl-4-(carboxymethoxy)-2,3,4,5-tetrahydro-1,4-benzothiazepine with (R)-4-[N'-[2-(S)-3-(R)-4-(S)-5-(R)-2,3,4,5,6-pentahydroxyhexyl]carbamoyl]phenylalanine gave II. Thus, I and their pharmaceutical drugs, are useful as ileal bile acid transport (IBAT) inhibitors for the treatment of hyperlipidemia (no data).

IT 753010-61-6P 753010-67-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzothiazepine and benzothiepine derivs. as ileal bile acid
transport (IBAT) inhibitors)

RN 753010-61-6 CAPLUS
CN D-Glucitol, 1-[[(2R)-1-[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl)oxy]acetyl]amino]phenylacetyl]amino]-1-deoxy- (9CI) (CA INDEX NAME)

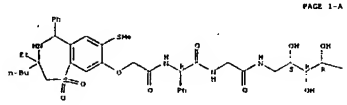
Absolute stereochemistry.



RN 753010-67-2 CAPLUS
CN D-Glucitol, 1-[[(2R)-N-[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl)oxy]acetyl]-2-phenylglycyl]glycyl]amino]-1-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

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L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

2004:740309 Document No. 141:268784 Preparation of benzothiazepine and benzothiepine derivatives as ileal bile acid transport (IBAT) inhibitors. Starke, Ingemar; Alenfalk, Suzanne; Hornberg, Mats Peter; Dahlstrom, Mikael Ulf Johan; Postrom, Stig; Jonas; Lemurell, Malin Anita; Wallberg, Andreas Christer (Astrazeneca Ab, Swed.; Astrazeneca Uk Limited). PCT Int. Appl. WO 2004076430 A1 20040910, 77 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, ZW: AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2004-GB694 20040223. PRIORITY: GB 2003-4194 20030225.

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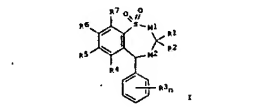

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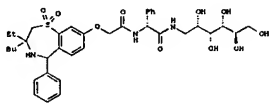


II

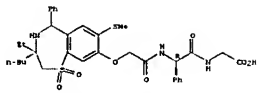
AB Title compds. represented by the formula I [wherein R1, R2 = H, alkyl, alkenyl; R3 = halo, nitro, cyano, amino, etc.; R5, R6 = independently H, hydroxy, (un)substituted carbamoyloxy, etc.; R4, R7 = independently H, halo, mercapto, alkenyl, etc.; R8, R9 = independently (un)substituted carbon or amino; n = 0-5; and pharmaceutically acceptable salts, solvates, solvates of such a salt or a prodrug thereof] were prepared as ileal bile

IT 501663-82-8P 753010-66-1P
RL: PCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of benzothiazepine and benzothiepine derivs. as ileal bile acid transport (IBAT) inhibitors)

RN 501663-82-8 CAPLUS

CN Glycine, (2R)-N-[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl)oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

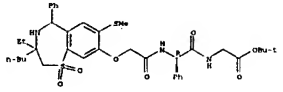
Absolute stereochemistry.



RN 753010-66-1 CAPLUS

CN Glycine, (2R)-N-[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl)oxy]acetyl]-2-phenylglycyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



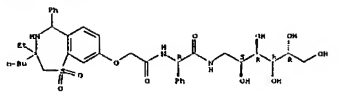
acid transport (IBAT) inhibitors. For example, reaction of (±)-trans-1,1-dioxo-3-ethyl-3-butyl-5-phenyl-7-(carboxymethoxy)-2,3,4,5-tetrahydro-1,4-benzothiazepine with (R)-4-[N'-[2-(S)-3-(R)-4-(R)-5-(R)-2,3,4,5,6-pentahydroxyhexyl]carbamoyl]benzylamino]ava Il. Thus, I and their pharmaceutical compns. are useful as ileal bile acid transport (IBAT) inhibitors for the treatment of hypercholesterolemia (no data).

IT 753010-61-6P 753010-67-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzothiazepine and benzothiepine derivs. as ileal bile acid transport (IBAT) inhibitors)

RN 753010-61-6 CAPLUS

CN D-Glucitol, 1-[[(2R)-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]-1-deoxy- (9CI) (CA INDEX NAME)

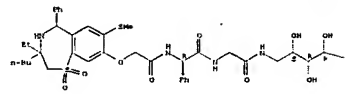
Absolute stereochemistry.



RN 753010-67-2 CAPLUS

CN D-Glucitol, 1-[[(2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiaz-pin-8-yl]oxy]acetyl]-2-phenylglycyl]glycyl]amino]-1-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
2003:221668 Document No. 138:238209 Preparation of benzothiazepine derivatives for potential use as ileal bile acid transport inhibitors for the treatment of hyperlipidemia. Starke, Ingemar; Dahlstrom, Mikael Ulf Johan; Blomberg, David (Astrazeneca Ab, Swed.; Astrazeneca Uk Limited). PCT Int. Appl. WO 2003022825 A1 20030320, 69 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, TR. (Swedish). CODEN: PIXXD2. APPLICATION: WO 2002-GB4043 20020905. PRIORITY: GB 2001-21621 20010907.

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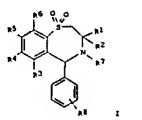
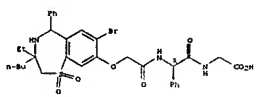


I

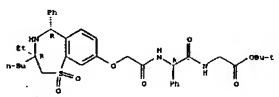
AB Benzothiazepines I, wherein R1 and R2 are selected from hydrogen, alkyl, alkenyl, and the other is selected from alkyl, alkenyl; R3 and R6 and the other of R4 and R5 are independently selected from hydrogen, halo, nitro, cyano, hydroxy, amino, carboxy, carbamoyl, mercapto, sulphamoyl, alkyl, alkenyl, alkynyl, alkoxy, alkanoyl, alkenyloxy, N-(alkyl)amino, N,N-(alkyl)2amino, alkanoylamino, N-(alkyl)carbamoyl, N,N-(alkyl)2carbamoyl, alkyl-S(O)a wherein a is 0 to 2, alkoxycarbonyl, N-(alkyl)sulphamoyl and N,N-(alkyl)2sulphamoyl; wherein R3 and R6 and the other of R4 and R5 may be optionally substituted on carbon; R7 is H alkyl, carbocyclyl, heterocyclyl; R8 is (R)-Y-R9 in which R9 is selected from halo, nitro, cyano, hydroxy, amino, carboxy, carbamoyl, mercapto, sulphamoyl, alkyl, alkenyl, alkynyl, alkoxy, alkanoyl, alkenyloxy, N-(alkyl)amino, N,N-(alkyl)2amino, alkanoylamino, N-(alkyl)carbamoyl, N,N-(alkyl)2carbamoyl, alkyl-S(O)a wherein a is 0 to 2, alkoxycarbonyl, N-(alkyl)sulphamoyl and N,N-(alkyl)2sulphamoyl; v is 0-5; variable groups are as defined within; pharmaceutically acceptable salts, solvates, solvates of such salts and prodrugs thereof and their potential use as ileal bile acid transport (IBAT) inhibitors for the treatment of hyperlipidemia. Processes for their manufacture and pharmaceutical compns. containing them are also described. Thus, 1,1-Dioxo-3(R)-3-butyl-3-ethyl-5-

Absolute stereochemistry.



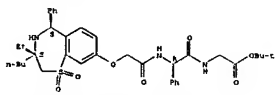
RN 501663-90-7 CAPLUS
CN Glycine,
(2R)-N-[[(3R,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 501663-91-8 CAPLUS
CN Glycine,
(2R)-N-[[(3S,5S)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

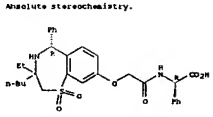
Absolute stereochemistry.



17 501663-78-1P 501663-79-2P 501663-81-6P
501663-82-7P 501663-83-8P 501663-84-9P
501663-86-1P 501663-95-0P
RL: IMF (Industrial manufacture); RPM (Synthetic preparation); PREP (Preparation)

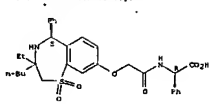
(R)-5-phenyl-8-(N-[(R)-α-(N-[(R)-α-(N-(carboxymethyl)carbamoyl)benzyl]carbamoy lmethoxy)-2,3,4,5-tetrahydro-1,4-benzothiazepineoxa prepd. and tested as ileal bile acid transport inhibitor and for the treatment of hyperlipidemia (no data).
IT 501663-75-9P 501663-76-9P 501663-80-5P
RL: IMF (Industrial manufacture); PCT (Reactant); RPM (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of benzothiazepine derivs. used as ileal bile acid transport
inhibitors for treatment of hyperlipidemia)
RN 501663-75-9 CAPLUS
CN Benzeneacetic acid, α-[[[[(5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino]-, (αR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 501663-76-9 CAPLUS
CN Benzeneacetic acid, α-[[[[(5S)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino]-, (αR)- (9CI) (CA INDEX NAME)

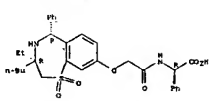
Absolute stereochemistry.



RN 501663-80-5 CAPLUS
CN Glycine,
(2R)-N-[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl)oxy]acetyl]-2-phenylglycyl-(9CI) (CA INDEX NAME)

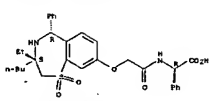
(preph. of benzothiazepine deriva. used as ileal bile acid transport inhibitors for treatment of hyperlipidemia)
RN 501663-78-1 CAPLUS
CN Benzeneacetic acid, α-[[[[(3R,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxid -5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



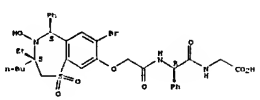
RN 501663-79-2 CAPLUS
CN Benzeneacetic acid, α-[[[[(3S,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino]-, (αS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



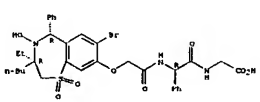
RN 501663-81-6 CAPLUS
CN Glycine, (2R)-N-[[(3S,5S)-7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl)oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



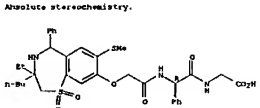
RN 501663-2-7 CAPLUS
CN Glycine, (2R)-N-[[[(3R,5R)-7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 501663-83-8 CAPLUS
CN Glycine, (2R)-N-[[(3-butyl-3-ethyl-2,3,4,4-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl)oxy]acetyl]-2-phenylglycyl- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



RN 501663-84-9 CAPLUS
CN Ethanesulfonic acid, 2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]-,monoammonium salt (9CI) (CA INDEX NAME)

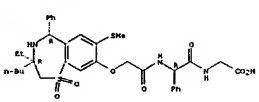
Absolute stereochemistry.

phenylglycyl-, compd. with N-ethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 501663-87-2
CMF C34 H41 N3 O7 S2

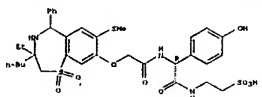
Absolute stereochemistry.



CM 2

CRN 109-89-7
CMF C4 H11 N

$H_3C-CH_2-NH-CH_2-CH_3$



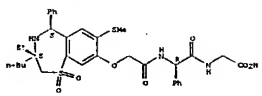
● NH_3

RN 501663-86-1 CAPLUS
CN Glycine, (2R)-N-[[[(3S,5S)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, compd. with N-ethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 501663-95-0
CMF C34 H41 N3 O7 S2

Absolute stereochemistry.



CM 2

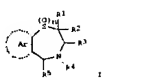
CRN 109-89-7
CMF C4 H11 N

$H_3C-CH_2-NH-CH_2-CH_3$

RN 501663-88-3 CAPLUS
CN Glycine, (2R)-N-[[(3R,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-

2002:421715 Document No. 137:93777 Preparation of benzothiazepine derivatives with activity of mimicking about high blood GLP-1 concentration. Haruna, Tomiko; Seto, Yoshiyuki; Eiki, Junichi (Banyu Pharmaceutical Co., Ltd., Japan). PCT Int. Appl. WO 2002053514 A1 20020711, 147 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, GA, GN, GQ, GW, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (Japanese). CODEN: PIXXD2. APPLICATION: WO 2001-JP11267 20011221. PRIORITY: JP 2000-397400 20001227.

GI



I

AB Compds. represented by the general formula (I) [wherein R1, R2 = H, C1-3 alkyl; R3 = H, C1-6 alkyl (except n-butyl); R4 = H, HO, C1-3 alkyl; R5, Ar = (un)substituted linear or branched, saturated or unsatd. C1-9 aliphatic group, (un)substituted aromatic carbocyclyl, C7-15 mono, di or tricyclic aromatic carbocyclyl, 5- to 8-membered heterocyclyl, mono, di, or tricyclic heterocyclyl containing 1-5 heteroatoms selected from N, O, and S for each ring; n = an integer of 0 to 2] were prepared. These compds. exhibit an activity of mimicking about a high blood glucagon-like peptide (GLP-1) concentration which in turn increases the secretion of insulin by acting on β cells of insula Langerhansi and thereby lower blood glucose level and are therefore useful as diabetes remedies, preventives for chronic complications of diabetes, antiobesity agents, and so on. Thus, 0.3 mL 2-isopropyl-2-aziridine (preparation given) was also dropwise to suspension of 300 mg phenyl(2-mercaptophenyl)methanone (preparation given) in 3.0 mL 2,6-lutidine at room temperature and stirred at room temperature for 3 h, followed by addn. 1.0 mL concentrated H2SO4, and the resulting mixture was boiled for 3 h and vacuum-distilled to give 68% 3-isopropyl-5-phenyl-2,3-dihydro-1,4-benzothiazepine (11). To a solution of 180 mg 11 in 3.0 mL CF3CO2H was added 1.0 mL 30% aqueous H2O2 at .apprx.0°, and stirred at room temperature overnight, treated with 10% aqueous sodium thiosulfate and saturated aqueous NaHCO3,

L6 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

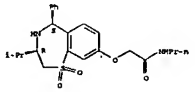
and extd. twice with EtOAc twice. The ext. was washed with satd. aq. NaCl, dried, concd. under reduced pressure, and mixed with 3.0 mL 4 N HCl/1,4-dioxane, followed by gradually adding 200 mg Zn powder, and the resulting mixt. was stirred at room temp. overnight to give, after work-up and silica gel chromatog., the diastereomers a and b of 3-isopropyl-5-phenyl-2,3,4,5-tetrahydro-1H-1,6,4-benzothiazepine-1,1-dione (III) in 1% and 31% yield, resp. III at 10 mg/kg p.o. significantly increased the blood GLP-1 concn. in male Wister rats. A capsule, a granule, and a tablet formulation contg. III were described.

IT 441013-71-4P 441013-72-5P 441014-02-4P
441014-04-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzothiazepine derivs. with activity of bringing about high blood GLP-1 concentration as diabetes remedies, preventives for chronic complications of diabetes, and antiobesity agents)

RN 441013-71-4 CAPLUS

CN Acetamide, N-propyl-2-[[(3R,5S)-2,3,4,5-tetrahydro-3-(1-methylethyl)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-4-yl]oxy]-,rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

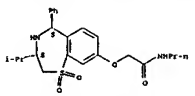


RN 441013-72-5 CAPLUS

CN Acetamide, N-propyl-2-[[(3R,5R)-2,3,4,5-tetrahydro-3-(1-methylethyl)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-4-yl]oxy]-,rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

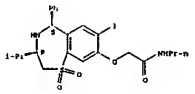
L6 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 441014-02-4 CAPLUS

CN Acetamide, N-propyl-2-[[(3R,5S)-2,3,4,5-tetrahydro-7-iodo-3-(1-methylethyl)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-4-yl]oxy]-,rel- (9CI) (CA INDEX NAME)

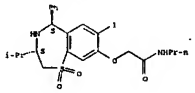
Relative stereochemistry.



RN 441014-04-6 CAPLUS

CN Acetamide, N-propyl-2-[[(3R,5R)-2,3,4,5-tetrahydro-7-iodo-3-(1-methylethyl)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-4-yl]oxy]-,rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



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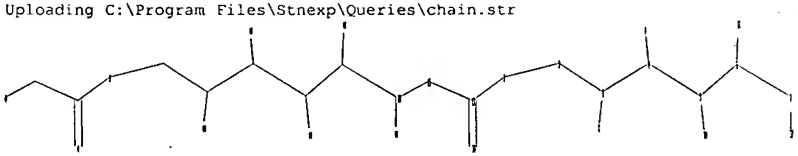
=>
Uploading C:\Program Files\Stnexp\Queries\chain.str



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chain bonds :
1-2 1-13 2-3 3-4 3-8 4-5 4-9 5-6 5-10 6-7 6-11 7-12 13-14 13-15 15-16

exact/norm bonds :
1-2 1-13 3-8 4-9 5-10 6-11 7-12 13-14 15-16
exact bonds :

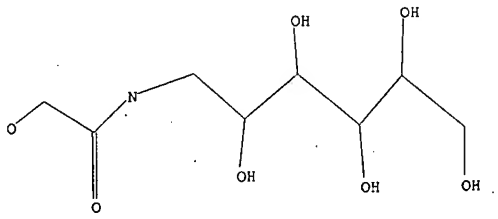
2-3 3-4 4-5 5-6 6-7 13-15

G1:O,S

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS

L7 STRUCTURE UPLOADED

=> d l7
L7 HAS NO ANSWERS
L7 STR



G1 O,S

Structure attributes must be viewed using STN Express query preparation.

=> s l7
SAMPLE SEARCH INITIATED 17:03:13 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 1010 TO ITERATE

100.0% PROCESSED 1010 ITERATIONS 10 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 18294 TO 22106
PROJECTED ANSWERS: 11 TO 389

L8 10 SEA SSS SAM L7

=> s l7 full
FULL SEARCH INITIATED 17:03:17 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 19353 TO ITERATE

100.0% PROCESSED 19353 ITERATIONS 127 ANSWERS
SEARCH TIME: 00.00.01

L9 127 SEA SSS FUL L7

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=> s l9
L10 42 L9

=> s l10 and bile
61800 BILE
344 BILES
61814 BILE
(BILE OR BILES)
L11 1 L10 AND BILE

=> d scan

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L11   1 ANSWERS   CAPLUS   COPYRIGHT 2007 ACS on STN
CC    63-5 (Pharmaceuticals)
TI    In vitro stability of liposomes in the presence of polymers, trehalose
and
      sodium taurocholate
ST    liposome stability; polymer liposome stability; trehalose liposome
      stability; taurocholate liposome stability
IT    Freeze drying
         (-thawing, liposomes stability to, polymers and taurocholate and
         trehalose effect on)
IT    Phosphatidylcholines, biological studies
      Sphingomyelins
      RL: BIOL (Biological study)
         (liposomes containing, stability of, polymers and taurocholate and
         trehalose effect on)
IT    Freezing
         (-thawing, liposomes stability to, polymers and taurocholate and
         trehalose effect on)
IT    Pharmaceutical dosage forms
         (liposomes, stability of, polymers and taurocholate and trehalose
         effect on)
IT    57-88-5, Cholesterol, biological studies   18656-3*-7   45322-29-8,
      Distearylphosphetidylcholine 13594i-60-5 135961-47-0
      135961-68-1
      RL: BIOL (Biological study)
         (liposomes containing, stability of, polymers and taurocholate and
         trehalose effect on)
IT    99-20-7, Trehalose   145-42-6, Sodium taurocholate   26246-91-3,
Polyvinyl
      laurate   30398-71-1, Polyvinyl palmitate
      RL: PROC (Process)
         (liposomes stability in presence of)

ALL ANSWERS HAVE BEEN SCANNED
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=> s l10 and ibat
          366 IBAT
L12         0 L10 AND IBAT

=> s l10 and transport
       751580 TRANSPORT
         6379 TRANSPORTS
       754156 TRANSPORT
                (TRANSPORT OR TRANSPORTS)
L13         0 L10 AND TRANSPORT

=> s l10 and inhibitor
       549359 INHIBITOR
       553130 INHIBITORS
       862893 INHIBITOR
                (INHIBITOR OR INHIBITORS)
L14         6 L10 AND INHIBITOR

=> d scan
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L14 6 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
IC ICM A61K007-42
ICS A61P007-135; A61P007-48; A61P007-06
CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 1, 25
TI Use of oxamate derivatives as whitening or depigmenting agents
ST oxamate deriv skin whitening depigmentation cosmetic
IT Cosmetics
(creams; use of oxamate derivs. as whitening or depigmenting agents)
IT Skin, disease
(depigmentation; use of oxamate derivs. as whitening or depigmenting agents)
IT Keratins
Melanins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(formation inhibitors; use of oxamate derivs. as whitening or depigmenting agents)
IT Cosmetics
(gels; use of oxamate derivs. as whitening or depigmenting agents)
IT Cosmetics
(skin-lightening; use of oxamate derivs. as whitening or depigmenting agents)
IT Cosmetics
(sticks; use of oxamate derivs. as whitening or depigmenting agents)
IT Anti-inflammatory agents
Thickening agents
(use of oxamate derivs. as whitening or depigmenting agents)
IT 9002-10-2, Tyrosinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; use of oxamate derivs. as whitening or depigmenting agents)
IT 40821-49-6P, Ethyl N-(4-hydroxyphenyl)oxamate 220974-95-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(use of oxamate derivs. as whitening or depigmenting agents)
IT 93-92-1, Ethyl oxalate 123-30-8 149-43-7, D-Glucamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(use of oxamate derivs. as whitening or depigmenting agents)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L14 6 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
IC ICM C07D205-08
ICS C07D409-12; A61K031-397; A61P003-06; A61P009-10
CC 34-3 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): 1
TI Preparation of diphenylazetidinone peptide derivatives for treating disorders of lipid metabolism
ST peptide azetidinone deriv prepn hypercholesterolemic disorder treatment
IT Hypolipemic agents
(preparation of diphenylazetidinone peptide derivs. for treating disorders of lipid metabolism)
IT Hyperlipidemia
RL: BCP (Biological process, unclassified); BIOL (Biological study)
(preparation of diphenylazetidinone peptide derivs. for treating disorders of lipid metabolism)
IT Peptides, preparation
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of diphenylazetidinone peptide derivs. for treating disorders of lipid metabolism)
IT 57-88-5, Cholesterol, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(preparation of diphenylazetidinone peptide derivs. as cholesterol absorption inhibitors for treatment of hyperlipidemia)
IT 646036-51-3P 646036-61-5P 646036-63-7P 646036-64-8P 646036-65-9P
646036-66-0P 646036-70-6P 646036-71-7P 646036-74-0P 646036-75-1P
646036-81-9P 646036-84-2P 646523-66-2P 646523-78-6P 646523-86-6P
646524-01-9P 646524-11-0P 646524-17-6P 646524-22-3P 646524-31-4P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of diphenylazetidinone peptide derivs. for treating disorders of lipid metabolism)
IT 646036-52-4P 646036-53-5P 646036-54-6P 646036-55-7P 646036-56-8P
646036-57-9P 646036-58-0P 646036-59-1P 646036-60-4P 646036-62-6P
646036-67-1P 646036-68-2P 646036-69-3P 646036-72-8P 646036-73-9P
646036-76-2P 646036-77-3P 646036-78-4P 646036-79-5P 646036-82-0P
646036-85-3P 646523-70-8P 646523-74-2P 646523-82-2P
646523-89-9P 646523-92-4P 646523-95-7P 646523-98-0P 646524-05-2P
646524-09-6P 646524-14-1P 646524-20-1P 646524-25-6P 646524-28-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of diphenylazetidinone peptide derivs. for treating disorders of lipid metabolism)
IT 107-35-7, Taurine 109-85-3, 2 Methoxyethylamine 141-43-5, 2 Aminoethanol, reactions 371-42-6, 4 Fluorothiophenol 2484-26-8
5292-4a-3, tert Butyl bromoacetate 5619-16-9 5959-95-5, D-Glutamine
6456-74-2, Glycine tert butyl ester 13041-32-8 13404-22-3
14529-23-8

L14 6 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
15028-39-4, D Phenylglycine methyl ester hydrochloride 15231-41-1
16450-41-2, Diethyl L glutamate 26749-75-7 27532-96-3, Glycine tert butyl ester hydrochloride 27746-22-7 59531-46-1 65715-93-7
75190-94-2 87553-74-0 105624-62-2 179559-35-4 439081-02-4
439089-67-2 646037-12-9 646037-13-0 646037-14-1 646037-15-2
646037-16-3 646037-17-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of diphenylazetidinone peptide derivs. for treating disorders of lipid metab.)
IT 439088-73-0P 439089-74-1P 501692-72-4P 501692-73-5P 501692-76-8P
646036-86-4P 646036-87-5P 646036-88-6P 646036-89-7P 646036-90-0P
646036-91-1P 646036-92-2P 646036-93-3P 646036-94-4P 646036-95-5P
646036-96-6P 646036-97-7P 646036-98-8P 646036-99-9P 646037-00-5P
646037-01-6P 646037-02-7P 646037-03-8P 646037-04-9P 646037-05-0P
646037-06-1P 646037-07-2P 646037-08-3P 646037-09-4P 646037-10-7P
646037-11-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of diphenylazetidinone peptide derivs. for treating disorders of lipid metabolism)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L14 6 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
CC 10 (Organic Chemistry)
TI Amino acid compounds having substituents on nitrogen
IT Neoplasms
(inhibitors of, amino acid derivs. as)
IT Amino acids
(N-derivs.)
IT 488-42-6 2619-97-8 52126-90-6
(Derived from data in the 6th Collective Formula Index (1957-1961))
IT 994-61-0, Glycine, N,N-bis(2-chloroethyl)-
(and deriv.)
IT 2611-74-7P, Valeric acid, 5-amidino- 108992-16-1, Butyramide, 2,4-dihydroxy-3,3-dimethyl-N-D-galacto-2,3,4,5,6-pentahydroxyhexyl-
RL: PREP (Preparation)
(preparation of)
IT 470-29-1, Butyric acid, 2,4-dihydroxy-3,3-dimethyl-
(stereoisomers, resolution with sugar amines)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L14 6 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
IC ICM A61K051-04
ICS A61K041-00; C07D487-22; A61K049-00
CC 8-9 (Radiation Biochemistry)
Section cross-reference(s): 28, 78
TI Radiation sensitization using texaphyrins, and texaphyrin preparation
ST texaphyrin prepn radiation sensitizer neoplasm treatment radiation sensitizer texaphyrin prepn; atheroma treatment radiation sensitizer texaphyrin prepn
IT Macrocyclic compounds
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates with texaphyrins; texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Neoplasm inhibitors
(radiosensitizing; texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Neoplasms
Radiosensitizers, biological
(texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Radiosensitizers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Porphyrins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(texaphyrins; texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Coordination compounds
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(with texaphyrins; texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Imaging
(MRI, contrast agents, texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Imaging
(agents, fluorescent; texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Scintigraphy
(agents, texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Antiatherosclerotics
(antiatherosclerotics, radiosensitizing; texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Arteriosclerosis
(atherosclerosis, texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Phototherapy
(cancer, texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Neoplasm inhibitors
(colon adenocarcinoma, radiosensitizing; texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Intestine, neoplasm
(colon, adenocarcinoma, inhibitors, radiosensitizing; texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Hormones
Peptides, biological studies

L14 6 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
Proteins, specific or class
Steroids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates, with texaphyrins; texaphyrins for radiation sensitization, and texaphyrin preps.)
IT Neoplasm inhibitors
(leukemia, radiosensitizing; texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Chelating agents, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tellurium, conjugates, with texaphyrins; texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Magnetic substances
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gases, texaphyrins for radiation sensitization, and texaphyrin preparation)
IT Photodynamic action
(therapeutic, texaphyrins for radiation sensitization, and texaphyrin preparation)
IT 165254-24-0P 165254-25-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(texaphyrins for radiation sensitization, and texaphyrin preparation)
IT 7782-44-7, Oxygen, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(texaphyrins for radiation sensitization, and texaphyrin preparation)
IT 71-30-7, Cytosine 98-59-9, Tosyl chloride 112-35-6, Triethylene glycol
monomethyl ether 120-40-9, Catechol, reactions 16056-77-2, Gadolinium acetate 19779-04-3, Lutetium acetate 149365-42-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(texaphyrins for radiation sensitization, and texaphyrin preparation)
IT 57721-85-7P 62521-74-4P 165254-21-7P 165254-22-8P 165254-23-9P
RL: RCT (Reactant); SYN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(texaphyrins for radiation sensitization, and texaphyrin preparation)
IT 50-24-8D, Estradiol, reaction product with texaphyrin analog 7439-91-0D, Lanthanum, texaphyrin complexes 7439-94-3D, Lutetium, texaphyrin complexes 7440-74-6D, Indium, texaphyrin complexes 25104-18-1D, Poly-L-lysine, reaction product with texaphyrin analog 39000-84-5D, Poly-L-lysine, reaction product with texaphyrin analog 165254-19-3 165254-20-6 165254-26-2 165254-27-3 165254-28-4D, D-saccharide derivative 165254-29-5 165254-30-8D, conjugate with linked oligosaccharides 165254-31-9D, conjugates with linked oligosaccharides, reaction products with poly-L-lysine or estradiol 165254-32-0 165254-33-1 165254-34-2D, conjugate with linked oligosaccharides or estradiol 165254-35-3 165254-36-4D, ester with estradiol 165254-37-5
165254-38-6D, D-saccharide 165254-39-7 165254-40-0 165254-41-1 165254-42-2D, conjugate with linked oligosaccharide 165254-42-2D, conjugate with linked oligosaccharide or ester with estradiol

L14 6 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
165254-43-3 165254-44-4 165254-45-5 165254-46-6
165254-47-7 165254-48-8 165254-49-9 165254-50-2 165254-51-3
165254-52-4 165254-53-5 165254-54-6 165254-55-7 165254-56-8
165254-57-9
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(texaphyrins for radiation sensitization, and texaphyrin prepn.)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

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=> d his

     (FILE 'HOME' ENTERED AT 16:25:08 ON 29 AUG 2007)

     FILE 'REGISTRY' ENTERED AT 16:25:17 ON 29 AUG 2007
L1             STRUCTURE UPLOADED
L2               0 S L1

     FILE 'STNGUIDE' ENTERED AT 16:26:00 ON 29 AUG 2007

     FILE 'REGISTRY' ENTERED AT 16:27:12 ON 29 AUG 2007
L3             STRUCTURE UPLOADED
L4               0 S L3
L5              23 S L3 FULL

     FILE 'CAPLUS' ENTERED AT 16:28:46 ON 29 AUG 2007
L6               3 S L5

     FILE 'STNGUIDE' ENTERED AT 16:39:06 ON 29 AUG 2007

     FILE 'REGISTRY' ENTERED AT 17:02:42 ON 29 AUG 2007
L7             STRUCTURE UPLOADED
L8              10 S L7
L9             127 S L7 FULL

     FILE 'CAPLUS' ENTERED AT 17:03:27 ON 29 AUG 2007
L10             42 S L9
L11              1 S L10 AND BILE
L12              0 S L10 AND IBAT
L13              0 S L10 AND TRANSPORT
L14              6 S L10 AND INHIBITOR

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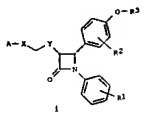
L14 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
2004:61434 Document No. 140:111687 Preparation of diphenylazetidinone peptide derivatives for treating disorders of lipid metabolism. Starke, Ingemar; Dahlstrom, Mikael Ulf Johan; Linkvist, Ann-Margret; Hornberg, Mats Peter; Bylund, Tore; Lesuisse, Malin Anita (Astrazeneca AB, Sweden; Astrazeneca UK Limited). PCT Int. Appl. WO 2004005247 A1 20040115, 134 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BF, BJ, CF, CG, CH, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2003-GB2911 20030701. PRIORITY: GB 2002-15579 20020705.

GI



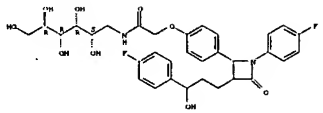
AB Azetidinone derivs. I [A is (un)substituted Ph or thienyl; X, Y are (un)substituted methylene, O, NH, alkylimino, S, SO, or SO2; R1, R2 are H, halo, nitro, cyano, etc.; R3 is (CHR4)1-2OnR5CHR6R7(CHR8)0-2R9, where R4, R6, R7, R8 are H, (un)substituted alkyl, carbocyclyl, or heterocyclyl or R6R7 is alkylene; R5 is H or alkyl; R9 is H, halo, nitro, amino, carbamo,l, sulfamoyl, hydroxyaminocarbonyl, alk(en)(yn)yl, alkoxy, alkoxycarbonyl, alkylamino, etc.] or their pharmaceutically-acceptable salts or prodrugs were prepared for use as cholesterol absorption inhibitors for the treatment of hypercholesterolemia. Thus, 1-(4-fluorophenyl)-3-[3-(4-fluorophenyl)-3-hydroxypropyl]-4-(4-carboxymethoxyphenyl)azetidin-2-one and tert-Bu N-[(2R)-2-amino-2-phenylethanoyl]glycinate were prepared and reacted to form the carboxamide.

IT 646523-74-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of diphenylazetidinone peptide derivs. for treating disorders of lipid metabolism)

RN 646523-74-2 CAPLUS

L14 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CN D-Glucitol, 1-deoxy-1-[[[4-[1-(4-fluorophenyl)-4-[3-(4-fluorophenyl)-3-hydroxypropyl]-4-oxo-2-azetidinyl]phenoxy]acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



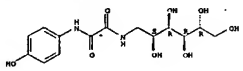
L14 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
1999:160149 Document No. 130:213471 Use of oxamate derivatives as whitening or depigmenting agents. Tuleup, Pany; Philippe, Michel (L'Oreal, Fr.). Eur. Pat. Appl. EP 898956 A1 19990303, 9 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (French). CODEN: EPXXDW. APPLICATION: EP 1998-402030 19980811. PRIORITY: FR 1997-10657 19970826.

AB Oxamate-derivs. are used as whitening or depigmenting agents in cosmetics.
A solution of 250 g paraaminophenol in 1 L Et oxalate was heated at 120° for 4 h followed by cooling and addition of 1L ethanol at 0°. Et N-(4-hydroxyphenyl)oxamate (I) thus obtained was filtered, washed, and dried (yield = 91%). The IC50 of I for inhibition of melanogenesis in cultured keratinocytes was 10 mM. A cream contained cetyl a.c., 1.05, Myrj-49 2, cyclomethicone 6, I 0.5, cathomet 0.6, glycerin 3, triethanolamine 1, preservatives 0.5, and water q.s. 100%.

IT 220974-95-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(use of oxamate derivs. as whitening or depigmenting agents)

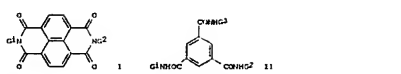
RN 220974-95-8 CAPLUS
CN D-Glucitol, 1-deoxy-1-[[[(4-hydroxyphenyl)amino]oxoacetyl]amino]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
1997:71930 Document No. 126:104363 Preparation of sulfate esters of amino sugar derivatives as inhibitors of migration and proliferation of blood vessel smooth muscle cells. Chucholowski, Alexander; Pech, Michael; Fingerle, Juergen; Rouge, Marianne; Thera, Migyi; Schmid, Gerard; Maeki, Hans Peter; Tschopp, Thomas; Mueller, Hitz; Wessel, Hans Peter (F. Hoffmann-La Roche AG, Switz.). Eur. Pat. Appl. EP 741139 A1 19961106, 36 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE. (German). CODEN: EPXXDW. APPLICATION: EP 1996-106437 19960425. PRIORITY: CH 1995-1311 19950501.

GI



AB G1NHCOR2NHG2, I, II: R = alkylene, (substituted) aromatic ring system; G1-G3 = residue of glycopyranoside, glycopyranose, and derivs.; at least one of G1-G3 is O-sulfated], were prepared. Thus, 2,3,4,5,6-penta-acetyl-D-gluconic acid (benzyl-3,4-di-O-acetyl-2-azino-2,6-dideoxy-D-glucopyranosid-4-yl)amide (preparation given) reacted with isophthalic acid to give isophthalic acid bis[(benzyl-3,4-di-O-acetyl-6-(2,3,4,5,6-penta-O-acetyl-D-gluconoylamino)-2,6-dideoxy-D-glucopyranosid-2-yl)amide]. This was deacetylated and sulfated to give isophthalic acid bis[(benzyl-2,6-dideoxy-6-(2,3,4,5,6-penta-O-sulfo-D-gluconoyl-amino)-3,4-di-O-sulfo-α-D-glucopyranosid-2-yl)amide] tetradecylsodium salt. The latter at 1.0 mg/kg i.v. in rats with denuded carotids gave 67% inhibition of neointima formation.

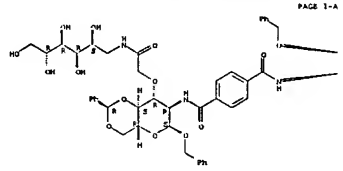
IT 185607-33-4P
RL: PCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of sulfate esters of amino sugar derivs. as inhibitors of migration and proliferation of blood vessel smooth muscle cells)

RN 185607-33-4 CAPLUS
CN α-D-Glucopyranoside, 2,2'-[1,4-phenylenebis(carbonylimino)]bis[phenylmethyl 2-deoxy-3-O-[2-[[(1-deoxy-D-glucitol-1-yl)amino]-2-oxoethyl]-4,6-O-[(R)-phenylmethylene]- (9CI) (CA INDEX NAME)

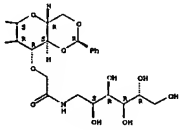
Absolute stereochemistry.

L14 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

PAGE 1-A



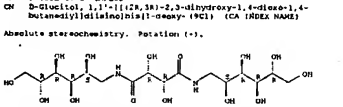
PAGE 1-B

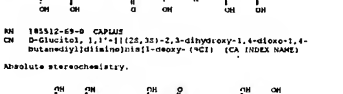


L14 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

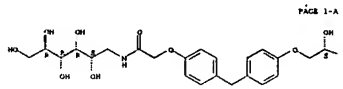
1997:69419 Document No. 126:69702 Preparation of sulfate esters of aminosugar derivatives for the inhibition of the migration and proliferation of vascular smooth muscle cells. Chuchalowski, Alexander; Pech, Milan; Fingerle, Juergen; Fouse, Melanie; Ehrly, Hiroji; Schmid, Gerald H; Maerki, Hans Peter; Tschopp, Thomas; Mueller, Rita; Wessel, Hans Peter; F. Hoffmann-La Roche AG, Switz.). Eur. Pat. Appl. EP 761129 A2 19970312, 59 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE. (German). CODEN: EPXXDW. APPLICATION: EP 1996-106471 19960424. PRIORITY: CH 1995-1310 19950505.

AB



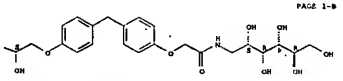


PAGE 1-A



L14 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

PAGE 1-B

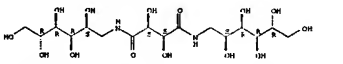


RN 185512-67-8 CAPLUS
CN D-Glucitol, 1,1'-[(2R,3R)-2,3-dihydroxy-1,4-dioxo-1,4-butanediyl]diimino]bis[1-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

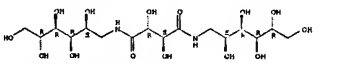
RN 185512-69-0 CAPLUS
CN D-Glucitol, 1,1'-[(2S,3S)-2,3-dihydroxy-1,4-dioxo-1,4-butanediyl]diimino]bis[1-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 185512-71-4 CAPLUS
CN D-Glucitol, 1,1'-[(2R,3S)-2,3-dihydroxy-1,4-dioxo-1,4-butanediyl]diimino]bis[1-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

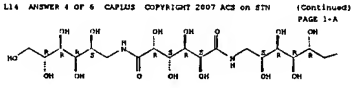


RN 185514-35-6 CAPLUS
CN Galactaramide, N,N'-bis(1-deoxy-D-glucitol-1-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

L14 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

OH

L14 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

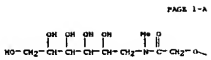
1995:696052 Document No. 123:106742 Radiation sensitization using texaphyrins, and texaphyrin preparation. Sessler, Jonathan L.; Harriman, Anthony W.; Miller, Richard A.; Mody, Tarak D.; Hemmi, Gregory W.; Israel, Vladimir; A.; Magda, Darren (University of Texas System, USA; Pharmacyclics, Inc.). PCT Int. Appl. WO 9513807 A1 19950526, 104 pp. DESIGNATED STATES: W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1994-US11491 19941012. PRIORITY: US 1993-135118 19931012.

AB Texaphyrins are provided for use as radiation sensitizers. Advantageous properties of texaphyrins for use as a radiation sensitizer include: (i) a low redox potential which allows radiation-induced hydrated electrons to flow to texaphyrin rather than neutralizing hydroxyl radicals, allowing hydroxyl radicals to cause cellular damage, (ii) a relatively stable texaphyrin radical that reacts readily to covalently modify neighboring sols, causing further cellular damage, (iii) intrinsic biolocalization, and (i.v.) insifference to the presence or absence of O2. These properties allow texaphyrins to be particularly effective for treating the hypoxic areas of solid neoplasms. Methods of treatment for an individual having a neoplasm or atheroma include the use of a texaphyrin as a radiation sensitizer and as an agent for photodynamic tumor therapy, or the use of a texaphyrin for internal and for external ionizing radiation. Novel texaphyrins are provided, as is a method for their preparation

IT 165254-45-5
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(texaphyrins for radiation sensitization, and texaphyrin preparation)

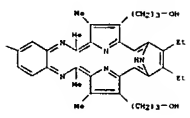
RN 165254-45-5 CAPLUS
CN Hexitol, 1-deoxy-1-[[[[9,10-diethyl-5,14-bis(3-hydroxypropyl)-2,4,15,17-tetramethyl-8,11-imino-3,6:16,13-dinitrilo-1,18-benzodiazacycloeicosin-20-yl]oxy]acetyl]methylamino]- (9CI) (CA INDEX NAME)

PAGE 1-A



L14 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

PAGE 1-B



L14 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

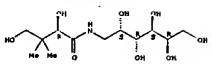
1958:25661 Document No. 52:25661 Original Reference No. 52:4682c-d Amino acid compounds having substituents on nitrogen. Itumi, Michisasa (Yoshitomi Pharmaceutical Industries, Ltd.). JP 32600763 19570206 Shows (Unavailable). APPLICATION: JP .

AB RCHZN(CH2CH2CL)2.HCl (I R = CH) (10 g.) in 30 ml. 35% HCl heated 2 hrs. at 60°, the product concentrated in vacuo, and the residue recrystd. from AcOEt gave I (R = CO2CH) (11), m. 76°. I (R = CO2Et) (20 g.) yielded 10 g. II, m. 76°. I (R = CONH2) (25 g.) yielded 14 g. II, m. 76°. II is effective in the treatment of tumors. Cf. C.A. 51, 14792e.

IT 108992-16-1, Butyramide, 2,4-dihydroxy-3,3-dimethyl-N-D-galacto-2,3,4,5,6-pentahydroxyhexyl-
RL: PRS (Preparation)
(preparation of)

RN 108992-16-1 CAPLUS
CN Butyramide, 2,4-dihydroxy-3,3-dimethyl-N-D-galacto-2,3,4,5,6-pentahydroxyhexyl- (6CI) (CA INDEX NAME)

Absolute stereochemistry.



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USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

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L2           0 S L1

     FILE 'STNGUIDE' ENTERED AT 16:26:00 ON 29 AUG 2007

     FILE 'REGISTRY' ENTERED AT 16:27:12 ON 29 AUG 2007
L3             STRUCTURE UPLOADED
L4           0 S L3
L5          23 S L3 FULL

     FILE 'CAPLUS' ENTERED AT 16:28:46 ON 29 AUG 2007
L6           3 S L5

     FILE 'STNGUIDE' ENTERED AT 16:39:06 ON 29 AUG 2007

     FILE 'REGISTRY' ENTERED AT 17:02:42 ON 29 AUG 2007
L7             STRUCTURE UPLOADED
L8          10 S L7
L9         127 S L7 FULL

     FILE 'CAPLUS' ENTERED AT 17:03:27 ON 29 AUG 2007
L10         42 S L9
L11          1 S L10 AND BILE
L12          0 S L10 AND IBAT
L13          0 S L10 AND TRANSPORT
L14          6 S L10 AND INHIBITOR

     FILE 'STNGUIDE' ENTERED AT 17:05:05 ON 29 AUG 2007

=> s l10 and lipid
COMBINATION OF STRUCTURE AND TEXT TERMS NOT VALID
The query entered contains both search terms created by
structure-building or screen commands and text search terms.  L#s
created via the STRUCTURE or SCREEN commands must be searched in the
structures files separately from text terms or profiles.  The L#
answer sets from structure searches can be used in crossover searches
and can be combined with text terms.

=> FIL CAPLUS
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FILE LAST UPDATED: 28 Aug 2007  (20070828/ED)

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=> s l10 and lipid
        292226 LIPID
        214063 LIPIDS
        358625 LIPID
                  (LIPID OR LIPIDS)
L15           4 L10 AND LIPID

=> d scan
```

L15 4 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
CC 34-3 (Physical Properties of Synthetic High Polymers)
 Section cross-reference(s): 23
TI Liposome formation from synthetic polyhydroxyl lipids
ST liposome polyhydroxyl lipid
IT Phosphatidylcholines, biological studies
 RL: BIOL (Biological study)
 (liposomes containing synthetic polyhydroxyl lipids and, encapsulation efficacy and stability of)
IT Encapsulation
 (with liposomes containing synthetic polyhydroxyl lipids, efficacy of)
IT Pharmaceutical dosage forms
 (liposomes, synthetic polyhydroxy lipids-containing, preparation and encapsulation efficacy and stability of)
IT 57-88-5, Cholesterol, uses and miscellaneous
 RL: USES (Uses)
 (liposomes containing synthetic polyhydroxyl lipids and, encapsulation efficacy and stability of)
IT 135941-62-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and esterification of, with hydroxysuccinimide)
IT 6076-37-5P 135941-61-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and oxidation of)
IT 544-62-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and reaction of, with fatty alcs.)
IT 135941-63-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and substitution reaction of, with methylglucamine)
IT 135941-60-5P 135961-67-0P 135961-68-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of and liposomes containing, encapsulation efficacy and
stability
 in relation to)
IT 112-92-5, 1-Octadecanol
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with epichlorohydrin or stearyl glycerol ether)
IT 106-89-8, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with stearyl alc.)
IT 112-72-1, Myristyl alcohol 661-19-8, Behenyl alcohol
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with stearyl glycerol ether)
IT 6284-40-8, N-Methylglucamine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (substitution reaction of, with stearylmyristyl ester)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L15 4 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
IC ICM C07D205-08
 ICS C07D403-12; A61K031-397; A61P003-06; A61P009-10
CC 34-3 (Amino Acids, Peptides, and Proteins)
 Section cross-reference(s): 1
TI Preparation of diphenylazetidinone peptide derivatives for treating disorders of lipid metabolism
ST peptide azetidinone deriv prepn hyperlipidemic disorder treatment
IT Hypolipemic agents
 (preparation of diphenylazetidinone peptide derivs. for treating
disorders
 of lipid metabolism)
IT Hyperlipidemia
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (preparation of diphenylazetidinone peptide derivs. for treating
disorders
 of lipid metabolism)
IT Peptides, preparation
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (preparation of diphenylazetidinone peptide derivs. for treating
disorders
 of lipid metabolism)
IT 57-88-5, Cholesterol, biological studies
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (preparation of diphenylazetidinone peptide derivs. as cholesterol absorption inhibitors for treatment of hyperlipidemia)
IT 646036-51-3P 646036-61-5P 646036-63-7P 646036-64-8P 646036-65-9P
 646036-66-0P 646036-70-6P 646036-71-7P 646036-74-0P 646036-75-1P
 646036-81-9P 646036-84-2P 646523-66-2P 646523-78-6P 646523-86-6P
 646524-01-8P 646524-11-0P 646524-17-6P 646524-22-3P 646524-31-4P
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (preparation of diphenylazetidinone peptide derivs. for treating
disorders
 of lipid metabolism)
IT 646036-52-4P 646036-53-5P 646036-54-6P 646036-55-7P 646036-56-8P
 646036-57-9P 646036-58-0P 646036-59-1P 646036-60-4P 646036-62-6P
 646036-67-1P 646036-68-2P 646036-69-3P 646036-72-8P 646036-73-9P
 646036-76-2P 646036-77-3P 646036-78-4P 646036-79-5P 646036-82-0P
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 646523-89-9P 646523-92-4P 646523-95-7P 646523-98-0P 646524-05-2P
 646524-08-5P 646524-14-3P 646524-20-1P 646524-25-6P 646524-28-9P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of diphenylazetidinone peptide derivs. for treating
disorders
 of lipid metabolism)
IT 107-35-7, Taurine 109-85-3, 2 Methoxyethylamine 141-43-5, 2 Aminoethanol, reactions 371-42-6, 4 Fluorothiophenol 2488-26-8 5292-43-3, tert Butyl bromoacetate 5619-16-9 5959-95-5, D-Glutamine 6456-74-2, Glycine tert butyl ester 13081-32-8 13404-22-3
14529-23-8

L15 4 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 15028-39-4, a Phenylglycine methyl ester hydrochloride 15231-41-1
 16450-41-2, Diethyl L glutamate 26787-75-7 27532-96-3, Glycine tert butyl ester hydrochloride 27786-22-7 59531-86-1 65715-93-7
 75190-94-2 87553-74-0 105624-62-2 179559-35-4 439081-02-4
 439088-67-2 646037-12-9 646037-13-0 646037-14-1 646037-15-2
 646037-16-3 646037-17-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of diphenylazetidinone peptide derivs. for treating disorders of lipid metab.)
IT 439088-73-0P 439088-74-1P 501692-72-4P 501692-73-5P 501692-76-8P
 646036-86-4P 646036-87-5P 646036-88-6P 646036-89-7P 646036-90-0P
 646036-91-1P 646036-92-2P 646036-93-3P 646036-94-4P 646036-95-5P
 646036-96-6P 646036-97-7P 646036-98-8P 646036-99-9P 646037-00-5P
 646037-01-6P 646037-02-7P 646037-03-8P 646037-04-9P 646037-05-0P
 646037-06-1P 646037-07-2P 646037-08-3P 646037-09-4P 646037-10-7P
 646037-11-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of diphenylazetidinone peptide derivs. for treating
disorders
 of lipid metabolism)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L15 4 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
CC 63-5 (Pharmaceuticals)
TI Incorporation of alphaxalone into different types of liposomes
ST alphaxalone liposome
IT Phosphatidylcholines, biological studies
 RL: BIOL (Biological study)
 (e.g., liposomes containing, for incorporation of alphaxalone)
IT Amphiphiles
 (liposomes containing, for incorporation of alphaxalone)
IT Pharmaceutical dosage forms
 (liposomes, alphaxalone incorporation into)
IT 57-88-5, Cholesterol, biological studies 4539-70-2, Distearoylphosphatidylcholine 18656-38-7,
Dimyristoylphosphatidylcholine
 135941-60-5 135961-67-0 135961-68-1
 RL: BIOL (Biological study)
 (liposomes containing, for incorporation of alphaxalone)
IT 23930-19-0, Alphaxalone
 RL: PROC (Process)
 (liposomes incorporation of)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L15 4 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
CC 63-5 (Pharmaceuticals)
TI In vitro stability of liposomes in the presence of polymers, trehalose
and
 sodium taurocholate
ST liposome stability; polymer liposome stability; trehalose liposome stability; taurocholate liposome stability
IT Freeze drying
 (-thawing, liposomes stability to, polymers and taurocholate and trehalose effect on)
IT Phosphatidylcholines, biological studies
Sphingomyelins
 RL: BIOL (Biological study)
 (liposomes containing, stability of, polymers and taurocholate and trehalose effect on)
IT Freezing
 (-thawing, liposomes stability to, polymers and taurocholate and trehalose effect on)
IT Pharmaceutical dosage forms
 (liposomes, stability of, polymers and taurocholate and trehalose effect on)
IT 57-88-5, Cholesterol, biological studies 18656-38-7 65322-29-0, Distearoylphosphatidylcholine 135941-60-5 135961-67-0
135961-68-1
 RL: BIOL (Biological study)
 (liposomes containing, stability of, polymers and taurocholate and trehalose effect on)
IT 99-20-7, Trehalose 145-42-6, Sodium taurocholate 26246-91-3,
Polyvinyl
 laurate 30394-71-1, Polyvinyl palmitate
 RL: PROC (Process)
 (liposomes stability in presence of)

ALL ANSWERS HAVE BEEN SCANNED

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L3             STRUCTURE UPLOADED
L4               0 S L3
L5              23 S L3 FULL

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L6               3 S L5

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L7             STRUCTURE UPLOADED
L8              10 S L7
L9             127 S L7 FULL

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L10             42 S L9
L11              1 S L10 AND BILE
L12              0 S L10 AND IBAT
L13              0 S L10 AND TRANSPORT
L14              6 S L10 AND INHIBITOR

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     FILE 'CAPLUS' ENTERED AT 17:06:30 ON 29 AUG 2007
L15              4 S L10 AND LIPID

=> d scan l11
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L11   1 ANSWERS   CAPLUS   COPYRIGHT 2007 ACS on STN
CC    63-5 (Pharmaceuticals)
TI    In vitro stability of liposomes in the presence of polymers, trehalose
and
      sodium taurocholate
ST    liposome stability; polymer liposome stability; trehalose liposome
      stability; taurocholate liposome stability
IT    Freeze drying
        (thawing, liposomes stability to, polymers and taurocholate and
        trehalose effect on)
IT    Phosphatidylcholines, biological studies
      Sphingomyelins
      RL: BIOL (Biological study)
        (lipid mixts. containing, stability of, polymers and taurocholate and
        trehalose effect on)
IT    Freezing
        (thawing, liposomes stability to, polymers and taurocholate and
        trehalose effect on)
IT    Pharmaceutical dosage forms
        (lipid mixts., stability of, polymers and taurocholate and trehalose
        effect on)
IT    57-88-5, Cholesterol, biological studies   14636-38-7   65322-29-0,
      Distearoylphosphatidylcholine 135941-60-5 135961-67-0
      135961-68-1
      RL: BIOL (Biological study)
        (lipid mixts. containing, stability of, polymers and taurocholate and
        trehalose effect on)
IT    99-20-7, Trehalose   143-42-6, Sodium taurocholate   26266-91-3,
Polyvinyl
      laurate   30298-71-3, Polyvinyl palmitate
      RL: PROC (Process)
        (liposomes stability in presence of)

ALL ANSWERS HAVE BEEN SCANNED
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=> d his

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L2           0 S L1

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     FILE 'REGISTRY' ENTERED AT 16:27:12 ON 29 AUG 2007
L3             STRUCTURE UPLOADED
L4           0 S L3
L5          23 S L3 FULL

     FILE 'CAPLUS' ENTERED AT 16:28:46 ON 29 AUG 2007
L6           3 S L5

     FILE 'STNGUIDE' ENTERED AT 16:39:06 ON 29 AUG 2007

     FILE 'REGISTRY' ENTERED AT 17:02:42 ON 29 AUG 2007
L7             STRUCTURE UPLOADED
L8          10 S L7
L9         127 S L7 FULL

     FILE 'CAPLUS' ENTERED AT 17:03:27 ON 29 AUG 2007
L10         42 S L9
L11          1 S L10 AND BILE
L12          0 S L10 AND IBAT
L13          0 S L10 AND TRANSPORT
L14          6 S L10 AND INHIBITOR

     FILE 'STNGUIDE' ENTERED AT 17:05:05 ON 29 AUG 2007

     FILE 'CAPLUS' ENTERED AT 17:06:30 ON 29 AUG 2007
L15          4 S L10 AND LIPID

=> file reg
FILE 'REGISTRY' ENTERED AT 17:07:46 ON 29 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   28 AUG 2007  HIGHEST RN 945714-55-6
DICTIONARY FILE UPDATES:  28 AUG 2007  HIGHEST RN 945714-55-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

 Please note that search-term pricing does apply when
 conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
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predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> s 501-663-91-8
         10673 501
             0 663-91-8
L16          0 501-663-91-8
                 (501(W)663-91-8)

=> s 501663-91-8
L17          1 501663-91-8
                 (501663-91-8/RN)

=> d l17/rid
'L17' MUST END IN '/Q', '/A', '/L', '/S' OR '/B'
The saved name for a query (or structure or screen set) must end with
'/Q'.  The saved name for an answer set must end with '/A'.  The saved
name for an L# list must end with '/L'.  SDI request names must end
with '/S'.  To see a list of all saved query, answer set,, and L# list
names for this loginid, enter "DISPLAY SAVED" at an arrow
prompt (=>).  Enter "DISPLAY SAVED/S" to see a list of SDI request
names.  Enter "DISPLAY SAVED/B" to see a list of BATCH search
requests.

=> d rid l17
'RID' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

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SQN    - Protein sequence name information, includes RN

CALC   - Table of calculated properties
EPROP  - Table of experimental properties
PROP   - EPROP and CALC

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APPS -- Application and Priority Information
BIB  -- CA Accession Number, plus Bibliographic Data
```

```
CAN  -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND  -- Index Data
IPC  -- International Patent Classification
PATS -- PI, SO
STD  -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when
it is available.
The MAX format is the same as ALL.
The IALL format is the same as ALL with BIB ABS and IND indented,
with text labels.

For additional information, please consult the following help
messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):re
'RE' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

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HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):ide
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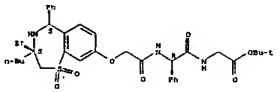
L17 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN
RN 501663-93-8 REGISTRY
ED Entered STN: 04 Apr 2003
CN Glycine,
(2R)-N-[[(3S,5E)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]acetyl]-2-phenylglycyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C37 H47 N3 O7 S
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d l17 full
'FULL' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

REG - RN
SAM - Index Name, MF, and structure - no RN
FIDE - All substance data, except sequence data
IDE - FIDE, but only 50 names
SQIDE - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD - Protein sequence data, includes RN
SQD3 - Same as SQD, but 3-letter amino acid codes are used
SQN - Protein sequence name information, includes RN

CALC - Table of calculated properties
EPROP - Table of experimental properties
PROP - EPROP and CALC

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OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

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The MAX format is the same as ALL.
The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields.

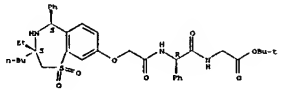
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):fide

L17 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN
RN 501663-91-8 REGISTRY
ED Entered STN: 04 Apr 2003
CN Glycine,
(2R)-N-[[(3S,5S)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]acetyl]-2-phenylglycyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C37 H47 N3 O7 S
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)

Ring System Data

Elemental Analysis	Element Sequence	Essential Rings	Ring Size	Ring Bonding	Ring Formula	Ring Identifier	Ring Occurrence Count
C6	(C6)	16	6	AR	C6	46.150.18	2
C6-CSN2	(C6-NC2SC3)	6-7	6	CMNS	C2NS	937.123.1	1

Absolute stereochemistry.



Predicted Properties (PPROP)

PROPERTY (CODE)	VALUE	CONDITION	NOTE
Bioconc. Factor (BCF)	49.35	pH 1 25 deg C	(1)
Bioconc. Factor (BCF)	51.35	pH 2 25 deg C	(1)
Bioconc. Factor (BCF)	67.79	pH 3 25 deg C	(1)
Bioconc. Factor (BCF)	231.39	pH 4 25 deg C	(1)
Bioconc. Factor (BCF)	1428.81	pH 5 25 deg C	(1)
Bioconc. Factor (BCF)	11418.51	pH 6 25 deg C	(1)
Bioconc. Factor (BCF)	46459.26	pH 7 25 deg C	(1)
Bioconc. Factor (BCF)	60257.57	pH 8 25 deg C	(1)

L17 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN (Continued)

Bioconc. Factor (BCF)	62079.50	pH 9 25 deg C	(1)
Bioconc. Factor (BCF)	62036.45	pH 10 25 deg C	(1)
Boiling Point (BP)	865.7+/-65.0 deg C	760 Torr	
Density (DENS)	1.175+/-0.06 g/cm**3	760 Torr	(1)
Enthalpy of Vap. (ENVAP)	125.41+/-3.0 kJ/mol	760 Torr	(1)
Flash Point (FP)	477.4+/-34.3 deg C		(1)
Freely Rotatable Bonds (FRB)	15		(1)
H Acceptors (HAC)	10		(1)
H Donors (HDO)	3		(1)
Hydrogen Donors/Acceptors Sum (HBAC)	13		(1)
Koc (KOC)	174.67	pH 1 25 deg C	(1)
Koc (KOC)	177.48	pH 2 25 deg C	(1)
Koc (KOC)	1102.30	pH 3 25 deg C	(1)
Koc (KOC)	1349.16	pH 4 25 deg C	(1)
Koc (KOC)	12747.51	pH 5 25 deg C	(1)
Koc (KOC)	121349.40	pH 6 25 deg C	(1)
Koc (KOC)	170104.76	pH 7 25 deg C	(1)
Koc (KOC)	190525.73	pH 8 25 deg C	(1)
Koc (KOC)	193674.94	pH 9 25 deg C	(1)
Koc (KOC)	193610.58	pH 10 25 deg C	(1)
LOGD (LOGD)	13.51	pH 1 25 deg C	(1)
LOGD (LOGD)	13.53	pH 2 25 deg C	(1)
LOGD (LOGD)	13.65	pH 3 25 deg C	(1)
LOGD (LOGD)	14.18	pH 4 25 deg C	(1)
LOGD (LOGD)	15.84	pH 5 25 deg C	(1)
LOGD (LOGD)	15.97	pH 6 25 deg C	(1)
LOGD (LOGD)	16.48	pH 7 25 deg C	(1)
LOGD (LOGD)	16.60	pH 8 25 deg C	(1)
LOGD (LOGD)	16.61	pH 9 25 deg C	(1)
LOGD (LOGD)	16.61	pH 10 25 deg C	(1)
LOGP (LOGP)	16.612+/-0.884	25 deg C	(1)
Mass Intrinsic Solubility (LSLB.MASS)	0.0000868 g/L	25 deg C	(1)
Mass Solubility (SLB.MASS)	0.088 g/L	pH 1 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.044 g/L	pH 2 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.065 g/L	pH 3 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.019 g/L	pH 4 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.0024 g/L	pH 5 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.00031 g/L	pH 6 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.000095 g/L	pH 7 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.000075 g/L	pH 8 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.000068 g/L	pH 9 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.000068 g/L	pH 10 25 deg C	(1)
Mass Solubility (SLB.MASS)	0.000095 g/L	(Unbuffered Water, pH 7.07) 25 deg C	(1)
Molar Intrinsic Solubility (ISLB.MOL)	0.00000010 mol/L	25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00013 mol/L	pH 1 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00013 mol/L	pH 2 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.000095 mol/L	pH 3 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00002* mol/L	pH 4 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0000036 mol/L	pH 5 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.0000046 mol/L	pH 6 25 deg C	(1)

L17 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN (Continued)

Molar Solubility (SLB.MOL)	0.00000014 mol/L	pH 7 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00000011 mol/L	pH 8 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00000010 mol/L	pH 9 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00000010 mol/L	pH 10 25 deg C	(1)
Molar Solubility (SLB.MOL)	0.00000014 mol/L	(Unbuffered Water, pH 7.07) 25 deg C	(1)
Molar Volume (MVOL)	576.7+/-3.0 cm**3/mol	29 deg C, 760 Torr	(1)
Molecular Weight (MW)	677.85		(1)
PKA (PKA)	12.39+/-0.46 (Most Acidic)	25 deg C	(1)
PKA (PKA)	6.53+/-0.60 (Most Basic)	25 deg C	(1)
Polar Surface Area (PSA)	148.28 A**2		(1)
Vapor Pressure (VP)	2.23E-30 Torr	25 deg C	(1)

(1) Calculated using Advanced Chemistry Development (ACD/Labs) Software V8.19 ((C) 1994-2007 ACD/Labs)

See HELP PROPERTIES for information about property data sources in REGISTRY.
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

```
=> d l17 rid
'RID' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

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HELP DFIELDS -- To see a complete list of individual display fields.
```



```
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):rid
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HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):/rid
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messages:
```



```
HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):dfields
'DFIELDS' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

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For additional information, please consult the following help
```

messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):end

=> help dfields

The display fields that you may use to display REGISTRY File records are listed below. You may use any of the SUBSTANCE INFORMATION FIELD CODES or PROPERTY FIELD CODES with the DISPLAY and PRINT commands. You may also use any of the CA DOCUMENT REFERENCE FIELD CODES OR PREDEFINED FORMATS, but these must always be combined with one of the Substance Information fields or formats. The fields appear in the order you request them.

The Component Number (CM) field code appears in records for multicomponent substances but is not a custom display field.

Substance Information Display Field Codes

AF	Alternate Molecular Formula
AR	Alternate CAS Registry Number
CCI	Component Class Identifier
CCN	Condensed Chemical Name (all names)
CI	Class Identifier
CIL	Component Isotope at Unknown Location
CMF	Component Molecular Formula
CN	Chemical Name (up to 50)
COMP	Composition
CRN	Component CAS Registry Number
DEF	Definition
DR	Deleted CAS Registry Number
ED	Entry Date
ENTE	Editor Note
FCN	All Chemical Names
FS	File Segment
IL	Isotope at Unknown Location
IN	CA Index Name
LC	CAS Registry Number Locator
MF	Molecular Formula
PCT	Polymer Class Term
PR	Preferred CAS Registry Number
REF	Number of References in CAplus, CA, and CAOLD files and the number of references in CA for the non-specific derivatives
RN	CAS Registry Number
RR	Replacing Registry Number
RSD	Ring System Data
SCN	Short Chemical Name (IN and OTHER NAMES)
SR	Source of Registration
SRSD	Short Ring System Data
STR	Structure Diagram with stereo bond and R/S/Z/E designations, if available
STF	Flat Structure Diagram (no stereo bonds)
STS	Structure Diagram with stereo bonds, if available

Biosequence Field Codes

NA	Nucleic Acid
NTE	Note
PNTE	Patent Annotation
SEQ	Sequence (1-letter amino acid codes)
SEQ3	Sequence (3-letter amino acid codes)
SQL	Sequence Length

Property Field Codes

BCF	Bioconcentration Factor
BP	Boiling Point
DEN	Density
ECND	Electric Conductivity
ECON	Electric Conductance
ERES	Electric Resistance
EREST	Electric Resistivity
ETAG	Experimental Property Tags
FP	Flash Point
FRB	Freely Rotable Bonds
HAC	H acceptors
HD	H donors
HDAS	H Donor/Acceptor Sum
HVAP	Enthalpy of Vaporization
ISLB.MASS	Mass Intrinsic Solubility
KOC	Organic Carbon Adsorption Coefficient
LD50	Median Lethal Dose
LOGD	logD
LOGP	logP
MM	Magnetic Moment
MP	Melting Point
MW	Molecular Weight
ORP	Optical Rotatory Power
PKA	pKa
PSA	Polar Surface Area
RI	Refractive Index
SLB.MASS	Mass Solubility
SLB.MOL	Molar Solubility
SPEC	Spectra
SPEC.C13NMR	Carbon-13 NMR Spectra
SPEC.IR	IR Absorption Spectra
SPEC.MASS	Mass Spectra
SPEC.H1NMR	Proton NMR Spectra
TG	Glass Transition Temperature
TS	Tensile Strength
VP	Vapor Pressure

CAplus Super Roles and Document Type Display Field codes

DT.CA	Caplus document type
RL	CAplus super roles
RL.NP	CAplus super roles from non-patents
RL.P	CAplus super roles from patents
RLD (RL.D)	CAplus super roles for non-specific derivatives
RLD. NP	CAplus super roles for non-specific derivatives

```
                from non-patents
RLD.P           CAplus super roles for non-specific derivatives
                   from patents
RLS             CAplus super roles for the specific substance
                   and its non-specific derivatives

For more information on display options, enter HELP FORMAT at an
arrow prompt (=>).  To find out about extracting search terms from
display fields, enter HELP SELECT and HELP ANALYZE.  For a list of
fields that may be used with the ANALYZE and SELECT commands, enter
HELP EFIELDS.

=> d l17 rsd
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L17  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2007 ACS on STN

Ring System Data

Elemental|Elemental| Size of |Ring System|   Ring   |   RID
Analysis |Se|ments |the Rings|  Formula  |Identifier|Occurrence
   EA    |  ES    |   SZ    |    RF     |   RID    |   Count
=========+==========+=========+===========+==========+==========
C6       |C6       |6        |C6         |46.150.14 |2
C6-C5N5  |C6-HC2SC3|6-7      |C5N5       |937.123.1 |1
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L18         1652 937.123.1/RID

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=> s l18
L19          159 L18

=> s l19 and bile
         61800 BILE
           344 BILES
         61814 BILE
                 (BILE OR BILES)
L20           27 L19 AND BILE

=> s l19 and ibat
           366 IBAT
L21            8 L19 AND IBAT

=> s l19 and bari
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L22            0 L19 AND BARI

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L23            5 L19 AND LIPID

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L21 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
2007:85769 Document No. 146:141491 Preparation of 4-2,3,4,5-tetrahydro-1,1-dioxido-1,4-benzothiazepine for the treatment of hyperlipidemia. Frick, Wendelin; Glombik, Heinz; Heuer, Heinrich; Schaefer, Hans-Ludwig; Theis, Stefan (Sanofi-Aventis Deutschland Gmbh, Germany). Ger. Offen. DE 102005033100 A1 20070125, 12pp. (German). CODEN: GWXXAW. APPLICATION: DE 2005-102005033100 20050715.

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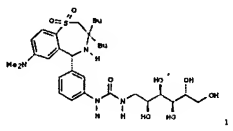


1

AB A process for the preparation of title compound I was disclosed. For example, compound I was prepared from D-glucamine in 5-steps. In a human ileal bile acid transporter (IBAT) inhibition assay, compound I exhibited an IC50 value of 0.155 μM.

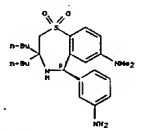
IT 921371-76-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of a benzothiazepine dioxide for the treatment of hyperlipidemia)

RN 921371-76-8 CAPLUS

CN D-Glucitol, 1-deoxy-1-[[[3-[(5R)-3,3-dibutyl-7-(diethylamino)-2,3,4,5-tetrahydro-1,1-dioxido-1,4-benzothiazepin-5-yl]phenyl]amino]carbonyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.

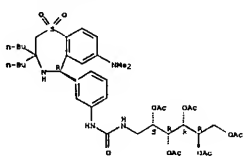
L21 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



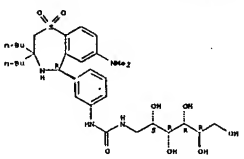
RN 921372-28-3 CAPLUS

CN D-Glucitol, 1-deoxy-1-[[[3-[(5R)-3,3-dibutyl-7-(diethylamino)-2,3,4,5-tetrahydro-1,1-dioxido-1,4-benzothiazepin-5-yl]phenyl]amino]carbonyl]amino]-, 2,3,4,5,6-pentaacetate (CA INDEX NAME)

Absolute stereochemistry.



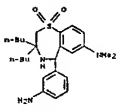
L21 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



IT 300350-10-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of a benzothiazepine dioxide for the treatment of hyperlipidemia)

RN 300350-10-1 CAPLUS

CN 1,4-Benzothiazepin-7-amine, 5-(3-aminophenyl)-3,3-dibutyl-2,3,4,5-tetrahydro-N,N-dimethyl-, 1,1-dioxide (CA INDEX NAME)



IT 670278-66-7P 921372-28-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of a benzothiazepine dioxide for the treatment of hyperlipidemia)

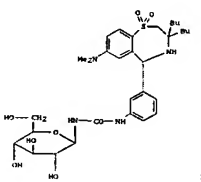
RN 670278-66-7 CAPLUS

CN 1,4-Benzothiazepin-7-amine, 5-(3-aminophenyl)-3,3-dibutyl-2,3,4,5-tetrahydro-N,N-dimethyl-, 1,1-dioxide, (5R)- (CA INDEX NAME)

Absolute stereochemistry.

L21 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
2007:61542 Document No. 146:142950 Synthesis of 1,4-benzothiazepin-1,1-dioxide phenylureido-glucoside for use in treatment of lipid exchange disorders. Frick, Wendelin; Glombik, Heinz; Heuer, Heinrich; Schaefer, Hans-Ludwig; Theis, Stefan (Sanofi-Aventis Deutschland G.m.b.H., Germany).
Ger. Offen. DE 102005033099 A1 20070118, 11pp. (German). CODEN: GWXXBX. APPLICATION: DE 2005-102005033099 20050715.

GI



I

AB Title compound (I) was prepared for use as a hypolipidemic agent in the treatment of lipid exchange disorders, e.g. hyperlipidaemia or arteriosclerosis. Thus, racemic 3,3-dibutyl-2,3,4,5-tetrahydro-7-dimethylamino-5-(3-aminophenyl)-1,4-benzothiazepine-1,1-dioxideas resolved using chiral column chromatog., and the (R)-isomer thus isolated was reacted with 2,3,4,6-tetra-O-acetyl-β-D-glucopyranosyl isocyanate; following deacetylation, I was recovered in 40-50% yield. In in vitro tests of ileal bile acid cotransporter (IBAT) inhibition, using Chinese hamster ovary cells cloned with human IBAT complementary DNA, I had IC50 0.057 μM, compared to 0.31% for the similar compound containing D-glucuronic acid amid in place of the β-D-glucopyranosyl.

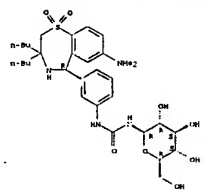
IT 919512-58-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzothiazepine-phenylureido-glucoside for use in treatment of lipid exchange disorders)

RN 919512-58-6 CAPLUS

CN Urea, N-[3-[(5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-1,1-dioxido-1,4-benzothiazepin-5-yl]phenyl]-N'-β-D-glucopyranosyl- (CA INDEX NAME)

Absolute stereochemistry.

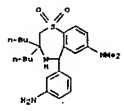
L21 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



IT 300350-10-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of benzothiazepine-phenylureido-glucosidefor use in treatment
of lipid exchange disorders)

RN 300350-10-1 CAPLUS

CN 1,4-Benzothiazepin-7-amine, 5-(3-aminophenyl)-3,3-dibutyl-2,3,4,5-tetrahydro-N,N-dimethyl-, 1,1-dioxide (CA INDEX NAME)



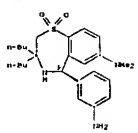
IT 670278-66-7P 919512-58-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of benzothiazepine-phenylureido-glucosidefor use in treatment
of lipid exchange disorders)

RN 670278-66-7 CAPLUS

CN 1,4-Benzothiazepin-7-amine, 5-(3-aminophenyl)-3,3-dibutyl-2,3,4,5-tetrahydro-N,N-dimethyl-, 1,1-dioxide, (5R)- (CA INDEX NAME)

L21 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

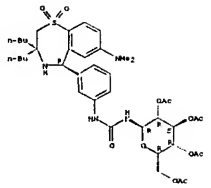
Absolute stereochemistry.



RN 919512-58-6 CAPLUS

CN Urea, N-[3-[(5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-1,1-dioxido-1,4-benzothiazepin-5-yl]phenyl]-N'-(2,3,4,6-tetra-O-acetyl)β-D-glucopyranosyl)- (CA INDEX NAME)

Absolute stereochemistry.



L21 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
2004:740309 Document No. 141:258794 Preparation of benzothiazepine and benzothiepine derivatives as ileal bile acid transport (IBAT) inhibitors. Starke, Ingmar; Alentalk, Suzanne; Nordberg, Mats Peter; Dahlstrom, Mikael Ulf Johan; Bostrom, Stig Johan; Lemurell, Malin Anita; Walther, Andreas Christer (Astrazeneca Ab, Swed.; Astrazeneca Uk Limited). PCT Int. Appl. WO 2004076430 A1 20040910, 77 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2004-GB595 20040223. PRIORITY: GB 2003-4194 20030225.

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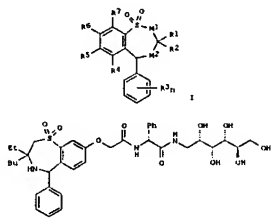


II

AB Title compds. represented by the formula I [wherein R1, R2 = H, alkyl, alkenyl; R3 = halo, nitro, cyano, selno, etc.; R5, R6 = independently H, hydroxy, (un)substituted carbamoylalkyloxy, etc.; R4, R7 = independently H, halo, mercapto, alkenyl, etc.; N1, N2 = independently functionalized carbon or amino; n = 0-5; and pharmaceutically acceptable salts, solvates, solvates of such a salt or a prodrug thereof] were prepared as ileal bile acid transport (IBAT) inhibitors. For example, reaction of (S)-trans-1,1-dioxo-3-ethyl-3-butyl-5-phenyl-8-(carboxymethoxy)-2,3,4,5-tetrahydro-1,4-benzothiazepine with (R)-4-[N'-[2-(2)-3-(R)-4-(R)-5-(S)-2,3,4,5,6-pentahydroxyhexylcarbamoyl]benzylamine gave II. Thus, I and

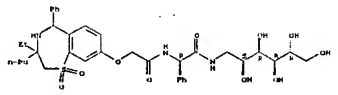
L21 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
their pharmaceutical compns. are useful as ileal bile acid transport (IBAT) inhibitors for the treatment of hyperlipidemia (no data).

IT 753010-61-6P 753010-67-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzothiazepine and benzothiepine derivs. as ileal bile acid
transport (IBAT) inhibitors)

RN 753010-61-6 CAPLUS

CN D-Glucitol, 1-[[[(2R)-[[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxino-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino](phenyl)acetyl]amino]-1-deoxy- (9CI) (CA INDEX NAME)

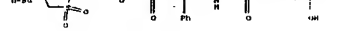
Absolute stereochemistry.



RN 753010-67-2 CAPLUS

CN D-Glucitol, 1-[[[(2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxino-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl]amino]-1-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



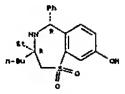
PAGE 1-A

L21 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

PAGE 1-B

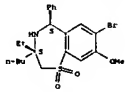
IT 178259-33-1 501663-95-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of benzothiazepine and benzothiepine derivs. as ileal bile acid
transport (IBAT) inhibitors)
RN 178259-33-1 CAPLUS
CN 1,4-Benzothiazepin-8-ol, 3-butyl-3-ethyl-2,3,4,5-tetrahydro-5-phenyl-,
1,1-dioxide, (3R,5R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

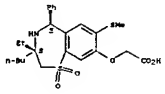


RN 501663-95-2 CAPLUS
CN 1,4-Benzothiazepine,
7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-8-methoxy-
5-phenyl-, 1,1-dioxide, (3R,5R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

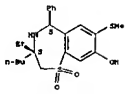


L21 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



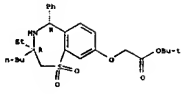
RN 501663-94-1 CAPLUS
CN 1,4-Benzothiazepin-8-ol,
3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-
5-phenyl-, 1,1-dioxide, (3R,5R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 753010-62-7 753010-66-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of benzothiazepine and benzothiepine derivs. as ileal bile acid
transport (IBAT) inhibitors)
RN 753010-62-7 CAPLUS
CN Acetic acid, [[(3R,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-
phenyl-1,4-benzothiazepin-8-yl]oxy]-, 1,1-dimethylethyl ester, rel- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



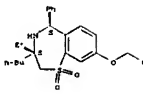
RN 753010-66-1 CAPLUS
CN Glycine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-
dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-,
1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L21 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

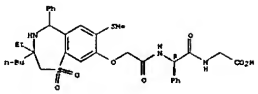
IT 501663-77-0P 501663-83-6P 501663-93-0P
501663-94-1P 753010-62-7P 753010-66-1P
RL: PCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of benzothiazepine and benzothiepine derivs. as ileal bile acid
transport (IBAT) inhibitors)
RN 501663-77-0 CAPLUS
CN Acetic acid, [[(3R,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-
phenyl-1,4-benzothiazepin-8-yl]oxy]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 501663-83-6 CAPLUS
CN Glycine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-
dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-
(9CI) (CA INDEX NAME)

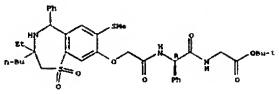
Absolute stereochemistry.



RN 501663-93-0 CAPLUS
CN Acetic acid, [[(3R,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-
1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]-, rel- (9CI) (CA INDEX
NAME)

Relative stereochemistry.

L21 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



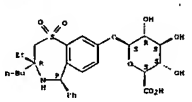
L21 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
2003:591069 Document No. 139:128038 Use of benzothiazepines having activity as inhibitors of ileal bile acid transport for reducing hypercholesterolemia. Lindqvist, Ann-Margret (Astrazeneca AB, Swed.; Astrazeneca UK Limited). PCT Int. Appl. WO 2003061663 A1 20030731, 56 pp.

DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2003-GB350 20030123. PRIORITY: GB 2002-1850 20020126.

AB The invention describes the use of an ileal bile acid transport (IBAT) inhibitor and the use of a combination of an IBAT inhibitor and an HMG-CoA reductase inhibitor in the treatment of a warm-blooded animal, such as man, with hypercholesterolemia and/or other forms of dyslipidemia wherein the hypercholesterolemia and dyslipidemias are characterized by defects in lipoproteins or their receptors.

IT 568526-29-4
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(benzothiazepines ileal bile acid transport inhibitors for treatment of
hypercholesterolemia and dyslipidemia, and use with HMG-CoA reductase inhibitors)
RN 568526-29-4 CAPLUS
CN β-D-Glu-pyranosiduronic acid, (3R,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl(9CI) (CA INDEX NAME)

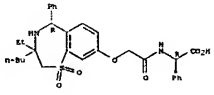
Absolute stereochemistry.



L21 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
(R)-5-phenyl-8-(N-((R)-α-[N-(carboxymethyl)carbamoyl]benzyl)carbamoylmethoxyl)-2,3,4,5-tetrahydro-1,4-benzothiazepine was prepd. and tested as ileal bile acid transport inhibitor and for the treatment of hyperlipidemia (no data).

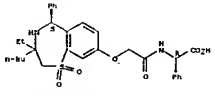
IT 501663-75-8P 501663-76-9P 501663-77-0P
501663-80-5P 501663-90-7P 501663-91-8P
501663-92-9P 501663-93-0P 501663-94-1P
RL: IMF (Industrial manufacture); PCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of benzothiazepine derivs. used as ileal bile acid transport
inhibitors for treatment of hyperlipidemia)
RN 501663-75-8 CAPLUS
CN Benzeneacetic acid, α-[[[[(5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino]-, (αR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 501663-76-9 CAPLUS
CN Benzeneacetic acid, α-[[[[(5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino]-, (αR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

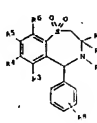


RN 501663-77-0 CAPLUS
CN Acetic acid, [[(3R,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

L21 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
2003:221668 Document No. 138:238709 Preparation of benzothiazepine derivatives for potential use as ileal bile acid transport inhibitors for the treatment of hyperlipidemia. Starke, Ingemar; Dahlstrom, Mikael Ulf Johan; Blomberg, David (Astrazeneca Ab, Swed.; Astrazeneca Uk Limited). PCT Int. Appl. WO 2003022825 A1 20030320, 69 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2002-GB4043 20020905. PRIORITY: GB 2001-21621 20010907.

GI



AB Benzothiazepines I, wherein R1 and R2 are selected from hydrogen, alkyl, alkenyl, and the other is selected from alkyl, alkenyl; R3 and R6 and the other of R4 and R5 are independently selected from hydrogen, halo, nitro, cyano, hydroxy, amino, carboxy, carbamoyl, mercapto, sulphanoyl, alkyl, alkenyl, alkynyl, alkoxy, alkanoyl, alkanoyloxy, N-(alkyl)amino, N,N-(alkyl)2amino, alkanoylamino, N-(alkyl)carbamoyl, N,N-(alkyl)2carbamoyl, alkylS(O)a wherein a is 0 to 2, alkoxycarbonyl, N-(alkyl)sulphamoyl and N,N-(alkyl)2sulphamoyl; wherein R3 and R6 and the other of R4 and R5 may be optionally substituted on carbon; R7 is H alkyl, carbocyclyl, heterocyclyl; R8 is (R2)v; R2 is selected from halo, nitro, cyano, hydroxy, amino, carboxy, carbamoyl, mercapto, sulphanoyl, alkyl, alkenyl, alkynyl, alkoxy, alkanoyl, alkanoyloxy, N-(alkyl)amino, N,N-(alkyl)2amino, alkanoylamino, N-(alkyl)carbamoyl, N,N-(alkyl)2carbamoyl, alkylS(O)a wherein a is 0 to 2, alkoxycarbonyl, N-(alkyl)sulphamoyl and N,N-(alkyl)2sulphamoyl; v is 0-5; variable groups are as defined within; pharmaceutically acceptable salts, solvates, solvates of such salts and prodrugs thereof and their potential use as ileal bile acid transport (IBAT) inhibitors for the treatment of hyperlipidemia. Processes for their manufacture and pharmaceutical compns. containing them are also described. Thus, 1,1-dioxo-3(R)-3-butyl-3-ethyl-5-

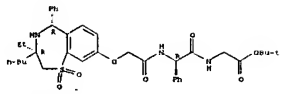
L21 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 501663-80-5 CAPLUS
CN Glycine,
(2R)-N-[[[7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-
5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-(9CI) (CA
INDEX NAME)

Absolute stereochemistry.

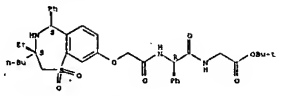
RN 501663-90-7 CAPLUS
CN Glycine,
(2R)-N-[[[(3R,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-
5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-,
1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



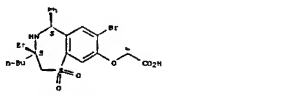
RN 501663-91-8 CAPLUS
CN Glycine,
(2R)-N-[[[(3R,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-
5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-,
1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

L21 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
Absolute stereochemistry.



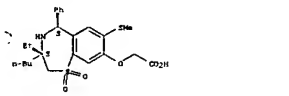
RN 501663-92-9 CAPLUS
CN Acetic acid, [[(3R,5R)-7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]-,rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 501663-93-0 CAPLUS
CN Acetic acid, [[(3S,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]-,rel- (9CI) (CA INDEX NAME)

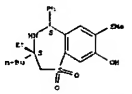
Relative stereochemistry.



RN 501663-94-1 CAPLUS
CN 1,4-Benzothiazepin-8-ol, 3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-

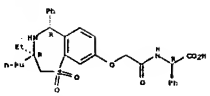
L21 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
5-phenyl-, 1,1-dioxide, (3R,5R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



LT 501663-78-1P 501663-79-2P 501663-81-6P
501663-82-7P 501663-83-8P 501663-84-9P
501663-86-1P 501663-88-3P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of benzothiazepine derivs. used as ileal bile acid transport
inhibitors for treatment of hyperlipidemia)
RN 501663-78-1 CAPLUS
CN Benzeneacetic acid, α-[[[[(3R,5R)-3-butyl-3-ethyl-2,3,4,5-tetranydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino]-, (αR)- (9CI) (CA INDEX NAME)

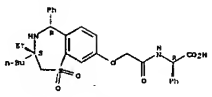
Absolute stereochemistry.



RN 501663-79-2 CAPLUS
CN Benzeneacetic acid, α-[[[[(3S,5R)-3-butyl-3-ethyl-2,3,4,5-tetrehydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino]-, (αR)- (9CI) (CA INDEX NAME)

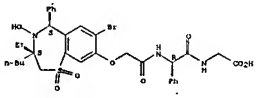
Absolute stereochemistry.

L21 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



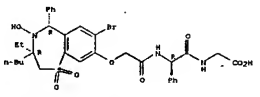
RN 501663-81-6 CAPLUS
CN Glycine, (2R)-N-[[[(3S,5S)-7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 501663-82-7 CAPLUS
CN Glycine, (2R)-N-[[[(3R,5R)-7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

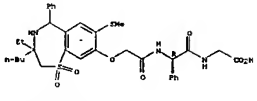
Absolute stereochemistry.



RN 501663-83-8 CAPLUS
CN Glycine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-
(9CI)
(CA INDEX NAME)

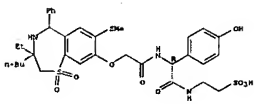
Absolute stereochemistry.

L21 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 501663-84-9 CAPLUS
CN Ethanesulfonic acid, 2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]-,monoammonium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● NH3

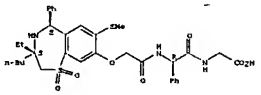
RN 501663-86-1 CAPLUS
CN Glycine, (2R)-N-[[[(3S,5S)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, compd. with N-ethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 501663-85-0
CMF C34 H41 N3 O7 S2

Absolute stereochemistry.

L21 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

CRN 109-89-7
CMF C4 H11 N

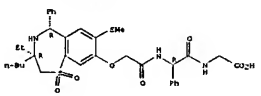
$H_3C-CH_2-NH-CH_2-CH_3$

RN 501663-88-3 CAPLUS
CN Glycine, (2R)-N-[[[(3R,5R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, compd. with N-ethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 501663-87-2
CMF C34 H41 N3 O7 S2

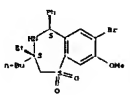
Absolute stereochemistry.



CM 2

CRN 109-89-7
CMF C4 H11 N

L21 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

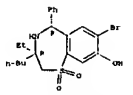


L21 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

$H_3C-CH_2-NH-CH_2-CH_3$

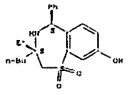
LT 178259-47-7 501663-89-4 501663-95-2
RL: PCT (Reactant); RACT (Reactant or reagent)
(preparation of benzothiazepine derivs. used as ileal bile acid transport
inhibitors for treatment of hyperlipidemia)
RN 178259-47-7 CAPLUS
CN 1,4-Benzothiazepin-8-ol, 7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-5-phenyl-, 1,1-dioxide, (3P,5R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 501663-89-4 CAPLUS
CN 1,4-Benzothiazepin-8-ol, 3-butyl-3-ethyl-2,3,4,5-tetrahydro-5-phenyl-, 1,1-dioxide, (3S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 501663-95-2 CAPLUS
CN 1,4-Benzothiazepine, 7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-8-methoxy-5-phenyl-, 1,1-dioxide, (3P,5P)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

L21 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L21 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
2002:711767 Document No. 138:248296 Ileal bile acid transporter inhibition, CYP7A1 induction, and antilipemic action of 264W94. Root, Carolyn Smith,
Chari D.; Sudweeth, Scott S.; Pink, Heather M.; Wilson, Joan G.; Lewis, Michael C. (Department of Information Analysis, GlaxoSmithKline Research and Development, Research Triangle Park, NC, 27709, USA). Journal of Lipid Research, 43(8), 1320-1330 (English) 2002. CODEN: JLPAW. ISSN: 0022-2275. Publisher: Lipid Research, Inc.
AB 264W94 was designed to inhibit the ileal bile acid transporter (IBAT). Evaluated in vitro, 264W94 dose-dependently inhibited sodium-dependent uptake of 10 μM [3H]taurocholic acid (TC) by rat and monkey brush border membrane vesicles with IC50s of 0.24 μM and 0.41 μM, and had a competitive profile with Ki of 0.2 μM against TC in Chinese hamster ovary cells expressing human IBAT. In distal ileum in situ, 1-10 μM of 264W94 rapidly decreased uptake of 3μM TC by 24-39%, with corresponding decreases in biliary recovery. In rats and mice in vivo, oral 264W94 decreased absorption of TC analog, 23,25-75Se-homocholic acid taurine (75SeHCAT; quantitated in feces), with ED30 of 0.02 mg/kg bid. 75SeHCAT traced through the GI-tract revealed that peak (97%) inhibition of 75SeHCAT absorption by the distal quarter of
small intestine occurred at 4 h after single dose of 264W94 (0.1 mg/kg). Inhibition of IBAT by 264W94 in rats was associated with compensatory, same day, 4-fold induction of hepatic cholesterol 7α-hydroxylase (CYP7A1) activity, exhibiting normal diurnal fluctuation for 3 days of dosing. In diet induced hypercholesterolemic rats, 264W94 (0.03-1.0 mg/kg bid) dose-dependently reduced serum LDL+VLDL cholesterol up to 61%. In conclusion, 264W94 is a potent new cholesterol lowering agent that acts through inhibition of IBAT and exhibits activity in a human model.
LT 178461-24-5, 264W94
PLT PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological activity); USES (Uses)
(ileal bile acid transporter inhibition, CYP7A1 induction, and antilipemic action of 264W94)
RN 178461-24-5 CAPLUS
CN 1,4-Benzothiazepine, 3-butyl-3-ethyl-2,3,4,5-tetrahydro-7,8-dimethoxy-5-phenyl-, 1,1-dioxide, (3r,5r)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

L21 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
2002:790031 Document No. 136:351190 Preparation of novel 1,4-benzothiazepine and 1,5-benzothiazepine compounds as inhibitors of apical sodium co-dependent bile acid transport and taurocholate uptake. Tremont, Samuel J.; Koeller, Kevin J.; Neumann, William L. (G.D. Searle and Co., USA). PCT Int. Appl. WO 2002085911 A2 20021031, 561 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, AP, EA, EP, OA, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2001-US23533 20010726. PRIORITY: US 2000-220594P 20000726; US 2001-812233 20010320.

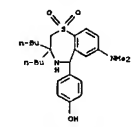
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. [I; R1 = CH2(CH2)3, CH3CH2; R2 = F, H, N(CH3)2; Y = CH2, NH; Z = NCOCH3, 4-CH3OCOC6H4N, CH3SCH, 4-(CH3CH2)2NCH2CH2OC6H4CH, 4-(CH3CH2)2NCH2CH2OC6H4CH=CH, 4-CH3CH2)2N-CH2CH2OC6H4CH, 4-(CH3CH2)2NCH2CH2[NCH2CH2]2OC6H4CH, 4-(CH3CH2)2NCH2CH2[OCH2CH2]2OC6H4CH, n = 1, 2], pharmaceutical compns., pharmaceutically acceptable salts, solvates, and prodrugs are prepared and methods for the treatment of a hyperlipidemic condition in a subject are claimed. Title compds. I are apical sodium co-dependent bile acid transporter (ASBT) inhibitors and taurocholate uptake inhibitors and are in vitro tested for uptake of [14C]-alanine inhibition and in vivo tested in male Wister rats for ileal inhibition effect by fecal bile acid content, using an enzymic assay. Thus, the title compound II-Cl was prepared from 3-FC6H4NH2, NH4SCN, BrCH2C(CH2)CH2CH3)2OOOH, and 4-ICH2C6H4CH3 via cyclization, decarboxylation, oxidation of sulfur, amination, demethylation, and reaction with 4-ClCH2C6H4CH2Cl and 1,4-diazabicyclo[2.2.2]octane.

IT 393855-90-8P 393855-95-3P 393855-98-6P
393856-01-4P 393856-04-7P 393856-09-2P
393856-12-7P 393856-20-7P
RL: PAC (Pharmacological activity); PCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of benzothiazepine-S as inhibitors of apical sodium co-dependent bile acid transport and taurocholate uptake)

RN 393855-90-8 CAPLUS
CN 1,4-Benzothiazepine, 3,3-dibutyl-2,3,4,5-tetrahydro-5-(4-methoxyphenyl)-7-nitro- (9CI) (CA INDEX NAME)

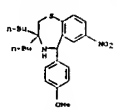


RN 393856-01-4 CAPLUS
CN Phenol, 4-(3,3-dibutyl-7-(diethylamino)-2,3,4,5-tetrahydro-1,1-dioxido-1,4-benzothiazepin-5-yl)- (9CI) (CA INDEX NAME)

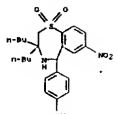
RN 393856-04-7 CAPLUS
CN 1,4-Benzothiazepin-7-amine, 3,3-dibutyl-2,3,4,5-tetrahydro-5-[4-[2-[2-(2-iodoethoxy)ethoxy]ethoxy]phenyl]-N,N-dimethyl-, 1,1-dioxide (9CI) (CA INDEX NAME)

RN 393856-09-2 CAPLUS
CN 1,4-Benzothiazepin-7-amine, 3,3-dibutyl-5-[4-[[4-(chloromethyl)phenyl]methoxy]phenyl]-2,3,4,5-tetrahydro-N,N-dimethyl-, 1,1-dioxide (9CI) (CA INDEX NAME)

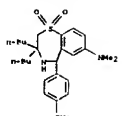
L21 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



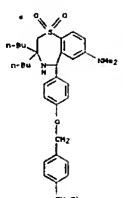
RN 393855-95-3 CAPLUS
CN 1,4-Benzothiazepine, 3,3-dibutyl-2,3,4,5-tetrahydro-5-(4-methoxyphenyl)-7-nitro-, 1,1-dioxide (9CI) (CA INDEX NAME)



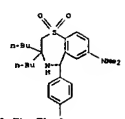
RN 393855-98-6 CAPLUS
CN 1,4-Benzothiazepin-7-amine, 3,3-dibutyl-2,3,4,5-tetrahydro-5-(4-methoxyphenyl)-N,N-dimethyl-, 1,1-dioxide (9CI) (CA INDEX NAME)



L21 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



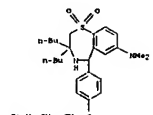
RN 393856-12-7 CAPLUS
CN Ethanaminium, 2-[2-[2-[4-[3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-1,1-dioxido-1,4-benzothiazepin-5-yl]phenoxy]ethoxy]ethoxy]-N,N,N-triethyl-, iodide (9CI) (CA INDEX NAME)



● I⁻

RN 393856-20-7 CAPLUS
CN 1,4-Benzothiazepin-7-amine, 3,3-dibutyl-5-[4-[2-(diethylamino)ethoxy]phenyl]-2,3,4,5-tetrahydro-N,N-dimethyl-, 1,1-dioxide (9CI) (CA INDEX NAME)

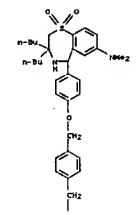
L21 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 393856-16-1P 393856-23-0P
PL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzothiazepines as inhibitors of apical sodium co-dependent bile acid transport and taurocholate uptake)

RN 393856-16-1 CAPLUS
CN 4-Aza-1-azoniabicyclo[2.2.2]octane, 1-[[4-[[4-[3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-1,1-dioxido-1,4-benzothiazepin-5-yl]phenoxy]methyl]phenyl]methyl]-, chloride (9CI) (CA INDEX NAME)

PAGE 1-A

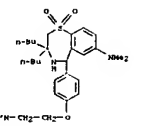


L21 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

PAGE 2-A

● Cl⁻

RN 393856-23-0 CAPLUS
CN Ethanaminium, 2-[4-[3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-1,1-dioxido-1,4-benzothiazepin-5-yl]phenoxy]-N,N,N-triethyl-, iodide (9CI) (CA INDEX NAME)



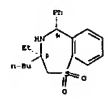
● I⁻

IT 152402-07-8P 393856-74-1P 393856-77-4P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of novel benzothiazepines as inhibitors of apical sodium co-dependent bile acid transport and taurocholate uptake)

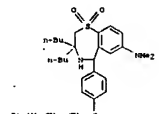
RN 152402-07-8 CAPLUS
CN 1,4-Benzothiazepine, 3-butyl-3-ethyl-2,3,4,5-tetrahydro-5-phenyl-, 1,1-dioxide, (3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

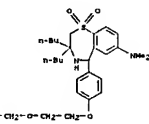
L21 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 393856-74-1 CAPLUS
CN Ethanaminium, 2-[4-[3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-1,1-dioxido-1,4-benzothiazepin-5-yl]phenoxy]-N,N,N-triethyl-(9CI) (CA INDEX NAME)



RN 393856-77-4 CAPLUS
CN Ethanaminium, 2-[2-[2-[4-[3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-1,1-dioxido-1,4-benzothiazepin-5-yl]phenoxy]ethoxy]ethoxy]-N,N,N-triethyl-(9CI) (CA INDEX NAME)



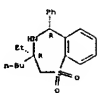
L21 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
2000:405899 Document No. 133:219702 Cytostar-T Scintillating Microplate Assay for Measurement of Sodium-Dependent Bile Acid Uptake in Transfected HEK-293 Cells. Bonde, Helena; Nielsen, Stefani Frykblad, Jan; Sjostrom, Jan-Eric (Cell Biology and Biochemistry, AstraZeneca R&D Molndal, Molndal, S-431 83, Swed.). Analytical Biochemistry, 282(1), 94-101 (English) 2000. CODEN: ANBCA2. ISSN: 0003-2697. Publisher: Academic Press.

AB Real-time measurements of bile acid uptake into HEK-293 cell monolayers expressing the human sodium/bile acid cotransporters have been demonstrated using Cytostar-T microplates with an integral scintillating base. In these 96-well microplates, which permit culturing and observation of adherent cell monolayers, uptake of 14C-labeled glycocholate and taurocholate into transfected HEK-293 cells was time-dependent, sodium-stimulated, and saturable. The sodium-activated uptake of 30 μM [14C]-glycocholate (GC) via the ileal (IBAT) and liver (LBAT) transporters was 30-40 times higher than GC uptake in a sodium-free background. In addition, ondansetron inhibition of the plasma membrane Na+,K+-ATPase, causing the sodium gradient to collapse, resulted in total loss of glycocholate transport. Induction of gene expression by sodium butyrate showed that the amount of labeled bile acid accumulated in the cell monolayers at steady state was a function of the total amount of transporter expressed. Uptake of labeled bile acids was inhibited both by the specific IBAT inhibitor, 2164U90, and by various bile acids. No major difference was observed between IBAT and LBAT in their specificity for the bile acids tested while the dihydroxy bile acids had the highest affinity for both the transporters studied. The Cytostar-T proximity assay has been demonstrated to be an accurate and reproducible method for monitoring specific bile acid transport in transfected mammalian cells and the results are similar to those obtained by traditional methods. We conclude that the technique is an attractive approach to the cellular study of membrane transport of radiolabeled solutes in general and support a role in screening and characterization of novel transport inhibitors. (c) 2000 Academic Press.

IT 152402-07-8, 2164U90
RL: PAU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(inhibitor; Cytostar-T scintillating microplate assay for measurement of sodium-dependent bile acid uptake in transfected HEK-293 cells)

RN 152402-07-8 CAPLUS
CN 1,4-Benzothiazepine, 3-butyl-3-ethyl-2,3,4,5-tetrahydro-5-phenyl-, 1,1-dioxide, (3R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L21 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)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L1                STRUCTURE UPLOADED
L2              0 S L1

     FILE 'STNGUIDE' ENTERED AT 16:26:00 ON 29 AUG 2007

     FILE 'REGISTRY' ENTERED AT 16:27:12 ON 29 AUG 2007
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L5             23 S L3 FULL

     FILE 'CAPLUS' ENTERED AT 16:28:46 ON 29 AUG 2007
L6              3 S L5

     FILE 'STNGUIDE' ENTERED AT 16:39:06 ON 29 AUG 2007

     FILE 'REGISTRY' ENTERED AT 17:02:42 ON 29 AUG 2007
L7                STRUCTURE UPLOADED
L8             10 S L7
L9            127 S L7 FULL

     FILE 'CAPLUS' ENTERED AT 17:03:27 ON 29 AUG 2007
L10            42 S L9
L11             1 S L10 AND BILE
L12             0 S L10 AND IBAT
L13             0 S L10 AND TRANSPORT
L14             6 S L10 AND INHIBITOR

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     FILE 'CAPLUS' ENTERED AT 17:06:30 ON 29 AUG 2007
L15             4 S L10 AND LIPID

     FILE 'REGISTRY' ENTERED AT 17:07:46 ON 29 AUG 2007
L16             0 S 501-663-91-8
L17             1 S 501663-91-8
L18          1652 S 937.123.1/RID

     FILE 'CAPLUS' ENTERED AT 17:11:52 ON 29 AUG 2007
L19           159 S L18
L20            27 S L19 AND BILE
L21             8 S L19 AND IBAT
L22             0 S L19 AND BARI
L23             5 S L19 AND LIPID
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=> s 120 and SAR
'RID' IS NOT A VALID FIELD CODE
             0 937.123.1/RID
             0 BILE
             0 SAR
L24          0 L20 AND SAR

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=> s 120 and SAR
         11688 SAR
          4115 SARS
         15503 SAR
                 (SAR OR SARS)
L25          0 L20 AND SAR

=> s 120 and Structure activity
       2954062 STRUCTURE
        795321 STRUCTURES
       3325146 STRUCTURE
                 (STRUCTURE OR STRUCTURES)
       2255565 ACTIVITY
        448733 ACTIVITIES
       2444372 ACTIVITY
                 (ACTIVITY OR ACTIVITIES)
         92355 STRUCTURE ACTIVITY
                 (STRUCTURE(W)ACTIVITY)
L26          2 L20 AND STRUCTURE ACTIVITY

=> dscan
DSCAN IS NOT A RECOGNIZED COMMAND
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=> d scan
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L26   2 ANSWERS   CAPLUS  COPYRIGHT 2007 ACS on STN
CC    28-22 (Heterocyclic Compounds (More Than One Hetero Atom))
      Section cross-reference(s): 1
TI    A novel class of apical sodium co-dependent bile acid
      transporter inhibitors: the 1,2-benzothiazepines
ST    hyperlipidemia dimethyl diethylene tetrahydro benzothiazepine1 dioxide
      preparation transport protein bile acid sodium cotransporter
      benzothiazepine1 dioxide preparation
IT    Structure-activity relationship
         (bile acid-sodium-cotransporter inhibitors; preparation of
         benzothiazepines as apical sodium co-dependent bile acid
         transporter inhibitors)
IT    Transport proteins
      RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process)
         (bile acid-sodium-cotransporter; preparation of benzothiazepines
         as apical sodium co-dependent bile acid transporter
         inhibitors)
IT    Hyperlipidemia
      RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process)
         (preparation of benzothiazepines as apical sodium co-dependent bile
         acid transporter inhibitors)
IT    178961-24-1, (3R,5R)-1-(1-butyl-3-ethyl-2,3,4,5-tetrahydro-7,8-
      diethoxy-5-phenyl-1,4-benzothiazepine)1,1-dioxide
      RL: PAC (Pharmacological activity); BIOL (Biological study)
         (preparation of benzothiazepines as apical sodium co-dependent bile
         acid transporter inhibitors)
IT    288161-53-5P   288161-54-6P   288161-55-7P   288161-58-0P   288161-59-1P
      288161-60-4P   288161-61-5P   288161-63-7P   288161-64-8P   288161-65-9P
      288161-66-0P   288161-67-1P   288161-68-2P   288161-70-6P   288161-71-7P
      288161-72-8P   288161-73-9P   288161-74-0P   288161-75-1P   288161-76-2P
      635753-20-7P
      RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL
      (Biological study); PREP (Preparation)
         (preparation of benzothiazepines as apical sodium co-dependent bile
         acid transporter inhibitors)
IT    100-39-0, Benzyl bromide   100-44-7, reactions   124-40-3, Dimethylamine,
      reactions   349-08-2, 4-Fluorobenzenesulfonyl chloride   619-23-8,
      3-Nitrobenzyl chloride   824-94-2, 4-Methoxybenzyl chloride   824-99-6,
      3-Methoxybenzyl chloride   19162-68-6, tert-Butyldimethylallyl chloride
      35421-08-0, 4-Hydroxybenzyl chloride   655-41-20-6, 3-Aminobenzyl chloride
      288161-81-9, 2-Amino-2-methyl-1-hexanol   635754-21-4   635754-22-5
      635753-23-0   635753-24-1   635753-25-2   635753-26-3   635753-27-4
      635753-29-6
      RL: RCT (Reactant); PACT (Reactant or reagent)
         (preparation of benzothiazepines as apical sodium co-dependent bile
         acid transporter inhibitors)
IT    288161-84-2P   288161-85-3P   288161-87-5P   288161-89-7P   288161-90-0P
      288161-91-1P   288161-92-2P   288161-93-3P   288161-97-7P   288161-98-8P
      288162-00-5P   288162-02-7P   635752-67-9P   635752-68-0P   635752-69-1P
      635752-70-4P   635752-72-6P   635752-74-8P   635752-76-0P   635752-78-2P
      635752-80-6P   635752-82-8P   635752-83-9P   635752-85-1P   635752-87-3P
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      RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
```

```
L26   2 ANSWERS   CAPLUS  COPYRIGHT 2007 ACS on STN     (Continued)
      (Reactant or reagent)
         (prepn. of benzothiazepines as apical sodium co-dependent bile
         acid transporter inhibitors)

NOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1)::1
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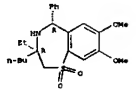
L26   2 ANSWERS   CAPLUS  COPYRIGHT 2007 ACS on STN
CC    1-12 (Pharmacology)
      Section cross-reference(s): 6
TI    Substrate specificity of the ileal and the hepatic Na+/bile acid
      cotransporters of the rabbit. II. A reliable 3D QSAR pharmacophore model
      for the ileal Na+/bile acid cotransporter
ST    sodium bile acid cotransporter pharmacophore QSAR
IT    Transport proteins
      RL: BSU (Biological study, unclassified); BIOL (Biological study)
         (bile acid-sodium-cotransporting; substrate specificity of
         ileal and hepatic Na+/bile acid cotransporters of the rabbit
         and a reliable 3D QSAR pharmacophore model for ileal Na+/bile
         acid cotransporter)
IT    Intestine
         (ileum; substrate specificity of ileal and hepatic Na+/bile
         acid cotransporters of the rabbit and a reliable 3D QSAR pharmacophore
         model for ileal Na+/bile acid cotransporter)
IT    Liver
      Pharmacophores
      QSAR (Structure-activity relationship)
         Structure-activity relationship
         (substrate specificity of ileal and hepatic Na+/bile acid
         cotransporters of the rabbit and a reliable 3D QSAR pharmacophore
model
         for ileal Na+/bile acid cotransporter)
IT    Bile acids
      RL: BAC (Biological activity or effector, except adverse); BSU
(Biological
      study, unclassified); BIOL (Biological study)
         (substrate specificity of ileal and hepatic Na+/bile acid
         cotransporters of the rabbit and a reliable 3D QSAR pharmacophore
model
         for ileal Na+/bile acid cotransporter)
IT    81-24-3, Cholyltaurine   516-35-8, Chenodeoxycholyltaurine   516-50-7,
      Deoxycholyltaurine   142974-51-4, 5 uses 152kU2-U7-4, 5 03U2
      200205-52-3   200205-54-5, 5 1C40   214283-63-3, 5 0927   214283-64-4
      214283-67-7, 5 8U5   214283-69-9, 5 W211   214283-68-8, 5 W211
      214283-70-2   214283-77-9, 5 0285   2491-5-31-4   259528-99-9, 5 1647
      259529-00-5, 5 2305 259529-01-6, 5 03U1
      RL: BAC (Biological activity or effector, except adverse); BSU
(Biological
      study, unclassified); BIOL (Biological study)
         (substrate specificity of ileal and hepatic Na+/bile acid
         cotransporters of the rabbit and a reliable 3D QSAR pharmacophore
model
         for ileal Na+/bile acid cotransporter)

ALL ANSWERS HAVE BEEN SCANNED
```



```
=> d cbib abs hitstr 1-2
```

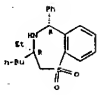
L26 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
2003:795089 Document No. 140:42152 A novel class of apical sodium co-dependent bile acid transporter inhibitors: the 1,2-benzothiazepines. Tolliver, Michael D.; Kolouchiej, Stephen A.; Fletcher, Theresa M.; Varnier, William F.; Beaudry, Judith A.; Keller, Bradley T.; Reich, Devin S. (Pfizer Global Research and Development, Chesterfield, MO, 63017, USA). Bioorganic & Medicinal Chemistry Letters, 13(21), 3727-3730 (English) 2003. CODEN: BMCLE8. ISSN: 0960-894X.
OTHER SOURCES: CASREACT 140:42152. Publisher: Elsevier Science B.V..
AB A series of 5-alkyl-3,3-dibutyl-7-(dimethylamino)-1,2-benzothiazepin-4-ol 1,1-dioxides were prepared and were found to inhibit the apical sodium co-dependent bile acid transporter (ASBT) for the potential treatment for hypercholesterolemia. Several 1,2-benzothiazepines exhibited low nanomolar in vitro activity. The synthesis and initial in vitro potency data is presented for this novel class of compds. The activity of the new 3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-2-(phenylmethyl)-1,2-benzothiazepin-4-ol 1,1-dioxide derivs. was compared to the known (3R,5R)-rel-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7,8-dimethoxy-5-phenyl-1,4-benzothiazepine 1,1-dioxide. Example compds. that prepared includes rel-(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-5-(3-nitrophenyl)-2-(phenylmethyl)-1,2-benzothiazepin-4-ol,1-oxide, rel-(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-5-[3-(ethylamino)phenyl]-2-(phenylmethyl)-1,2-benzothiazepin-4-ol,1,1-dioxide, rel-(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-5-(3-methoxyphenyl)-2-methyl-1,2-benzothiazepin-4-ol,1,1-dioxide, rel-2-[2-[4-[(4R,5R)-3,3-dibutyl-7-(dimethylamino)-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-1,2-benzothiazepin-5-yl]phenoxy]ethoxy]ethenyl]-N,N,N-triethylethanaminium iodide.
IT 179961-24-5, (3R,5R)-rel-3-but,1-3-ethyl-2,3,4,5-tetrahydro-7,8-dimethoxy-5-phenyl-1,4-benzothiazepine1,1-dioxide
RL: PAC (Pharmacological activity); BIOL (Biological study)
(preparation of benzothiazepines as apical sodium co-dependent bile acid transporter inhibitors)
RN 179961-24-5 CAPLUS
CN 1,4-Benzothiazepine, 3-butyl-3-ethyl-2,3,4,5-tetrahydro-7,8-dimethoxy-5-phenyl-, 1,1-dioxide, (3R,5R)-rel- (9CI) (CA INDEX NAME)
Relative stereochemistry.



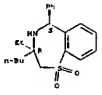
L26 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

L26 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
2000:2055 Document No. 132:175759 Substrate specificity of the ileal and the hepatic Na+/bile acid cotransporters of the rabbit. II. A reliable 3D QSAR pharmacophore model for the ileal Na+/bile acid cotransporter. Perlmayer, Karl-Heinz; Matter, Hans; Stengelin, Siegfried; Kramer, Werner (Department of Medicinal Chemistry and DG Metabolic Diseases, Hoechst Marion Roussel Deutschland GmbH, Frankfurt/Main, D-65926, Germany). Journal of Lipid Research, 40(12), 2158-2168 (English) 1999. CODEN: JLPRAW. ISSN: 0022-2275. Publisher: Lipid Research, Inc..
AB To design a reliable 3D QSAR model of the intestinal Na+/bile acid cotransporter, we have used a training set of 17 inhibitors of the rabbit ileal Na+/bile acid cotransporter. The IC50 values of the training set of compds. covered a range of four orders of magnitude for inhibition of [3H]cholyltaurine uptake by CHO cells expressing the rabbit ileal Na+/bile acid cotransporter allowing the generation of a pharmacophore using the CATALYST algorithm. After thorough conformational anal. of each mol., CATALYST generated a pharmacophore model characterized by five chemical features: one hydrogen bond donor, one hydrogen bond acceptor, and three hydrophobic features. The 3D pharmacophore was enantiospecific and correctly estimated the activities of the members of the training set. The predicted interactions of natural bile acids with the pharmacophore model of the ileal Na+/bile acid cotransporter explain exactly the exptl. found structure-activity relationships for the interaction of bile acids with the ileal Na+/bile acid cotransporter. The natural bile acid analogs cholyltaurine, chenodeoxycholyltaurine, or deoxycholyltaurine were able to map four of the five features of the pharmacophore model: (a) the five-membered ring D and the Me group at position 19 map one hydrophobic site and the 21-Me group of the side chain maps a second hydrophobic site; (b) one of the α-oriented hydroxyl groups at position 7 or 12 fits the hydrogen bond donor feature; (c) the neg. charged side chain acts as hydrogen bond acceptors; and (d) the hydroxy group at β position 3 does not specifically map any of the five binding features of the pharmacophore model. The 3-hydroxy group of natural bile acids is not essential for interactions with ileal or hepatic Na+/bile acid cotransporters. A modification of the 3-position of a natural bile acid mol. is therefore the preferred position for drug targeting strategies using bile acid transport pathways.
IT 152982-07-7, 5 βH-2 259529-01-6, 5 βH-1
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(substrate specificity of ileal and hepatic Na+/bile acid cotransporters of the rabbit and a reliable 3D QSAR pharmacophore model for ileal Na+/bile acid cotransporter)
RN 152982-07-7 CAPLUS
CN 1,4-Benzothiazepine, 3-butyl-3-ethyl-2,3,4,5-tetrahydro-5-phenyl-, 1,1-dioxide, (3R,5R)- (9CI) (CA INDEX NAME)
Absolute stereochemistry.

L26 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 259529-01-6 CAPLUS
CN 1,4-Benzothiazepine, 3-butyl-3-ethyl-2,3,4,5-tetrahydro-5-phenyl-, 1,1-dioxide, (3R,5S)- (9CI) (CA INDEX NAME)
Absolute stereochemistry.



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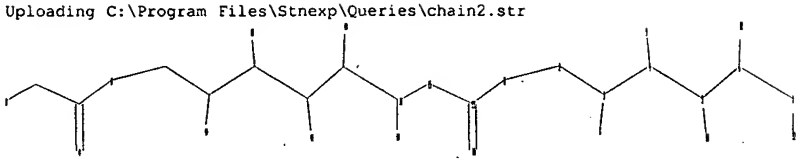
Uploading C:\Program Files\Stnexp\Queries\chain2.str



chain nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
chain bonds :
1-2 1-13 2-3 3-4 3-8 4-5 4-9 5-6 5-10 6-7 6-11 7-12 13-14 13-15 15-16

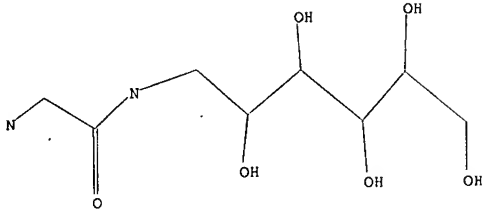
exact/norm bonds :
1-2 1-13 3-8 4-9 5-10 6-11 7-12 13-14 15-16
exact bonds :
2-3 3-4 4-5 5-6 6-7 13-15

G1:O,S

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS

L27 STRUCTURE UPLOADED

=> d l27
L27 HAS NO ANSWERS
L27 STR



G1 O,S

Structure attributes must be viewed using STN Express query preparation.

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=> s l27
   REGIstRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.



SAMPLE SEARCH INITIATED 17:26:48 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      422 TO ITERATE

100.0% PROCESSED      422 ITERATIONS                              7 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          7208 TO     9672
PROJECTED ANSWERS:                7 TO      298

L28           7 SEA SSS SAM L27


L29         11 L28

=> FIL REGISTRY
FILE 'REGISTRY' ENTERED AT 17:26:54 ON 29 AUG 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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provided by InfoChem.

STRUCTURE FILE UPDATES:   28 AUG 2007  HIGHEST RN 945714-55-6
DICTIONARY FILE UPDATES:  28 AUG 2007  HIGHEST RN 945714-55-6

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TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

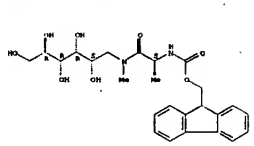
http://www.cas.org/support/stngen/stndoc/properties.html

=> d scan l28
```



```
L28  7 ANSWERS  REGISTRY  COPYRIGHT 2007 ACS on STN
IN   D-Glucitol,
1-deoxy-1-[[1,2S)-2-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]-1-
   oxopropyl]methylamino]- (9CI)
MF   C25 H32 N2 O8

Absolute stereochemistry.
```



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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0
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=> d his

     (FILE 'HOME' ENTERED AT 16:25:08 ON 29 AUG 2007)

     FILE 'REGISTRY' ENTERED AT 16:25:17 ON 29 AUG 2007
L1             STRUCTURE UPLOADED
L2           0 S L1

     FILE 'STNGUIDE' ENTERED AT 16:26:00 ON 29 AUG 2007

     FILE 'REGISTRY' ENTERED AT 16:27:12 ON 29 AUG 2007
L3             STRUCTURE UPLOADED
L4           0 S L3
L5          23 S L3 FULL

     FILE 'CAPLUS' ENTERED AT 16:28:46 ON 29 AUG 2007
L6           3 S L5

     FILE 'STNGUIDE' ENTERED AT 16:39:06 ON 29 AUG 2007

     FILE 'REGISTRY' ENTERED AT 17:02:42 ON 29 AUG 2007
L7             STRUCTURE UPLOADED
L8          10 S L7
L9         127 S L7 FULL

     FILE 'CAPLUS' ENTERED AT 17:03:27 ON 29 AUG 2007
L10          42 S L9
L11           1 S L10 AND BILE
L12           0 S L10 AND IBAT
L13           0 S L10 AND TRANSPORT
L14           6 S L10 AND INHIBITOR

     FILE 'STNGUIDE' ENTERED AT 17:05:05 ON 29 AUG 2007

     FILE 'CAPLUS' ENTERED AT 17:06:30 ON 29 AUG 2007
L15           4 S L10 AND LIPID

     FILE 'REGISTRY' ENTERED AT 17:07:46 ON 29 AUG 2007
L16           0 S 501-663-91-8
L17           1 S 501663-91-8
L18        1652 S 937.123.1/RID

     FILE 'CAPLUS' ENTERED AT 17:11:52 ON 29 AUG 2007
L19         159 S L18
L20          27 S L19 AND BILE
L21           8 S L19 AND IBAT
L22           0 S L19 AND BARI
L23           5 S L19 AND LIPID

     FILE 'STNGUIDE' ENTERED AT 17:13:14 ON 29 AUG 2007
L24           0 S L20 AND SAR

     FILE 'CAPLUS' ENTERED AT 17:15:23 ON 29 AUG 2007
L25           0 S L20 AND SAR
L26           2 S L20 AND STRUCTURE ACTIVITY
L27             STRUCTURE UPLOADED
              S L27
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```
     FILE 'REGISTRY' ENTERED AT 17:26:48 ON 29 AUG 2007
L28           7 S L27

     FILE 'CAPLUS' ENTERED AT 17:26:48 ON 29 AUG 2007
L29          11 S L28

     FILE 'REGISTRY' ENTERED AT 17:26:54 ON 29 AUG 2007

=> s l27 full
FULL SEARCH INITIATED 17:27:19 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      7541 TO ITERATE

100.0% PROCESSED     7541 ITERATIONS                              118 ANSWERS
SEARCH TIME: 00.00.01

L30         118 SEA SSS FUL L27

=> file caplus
FILE 'CAPLUS' ENTERED AT 17:27:24 ON 29 AUG 2007
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FILE COVERS 1907 - 29 Aug 2007  VOL 147 ISS 10
FILE LAST UPDATED: 28 Aug 2007  (20070828/ED)

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http://www.cas.org/infopolicy.html

=> s l30
L31          52 L30

=> s l31 and lipid
        292226 LIPID
        214063 LIPIDS
        358625 LIPID
                (LIPID OR LIPIDS)
L32           4 L31 AND LIPID

=> s l31 and ibat
           366 IBAT
L33           4 L31 AND IBAT
```

```
=> s l32 or l33
L34             7 L32 OR L33

=> d cbib abs hitstr
```


L34 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
2005:596385 Document No. 144:208373 Detection of the tumor cell lectins by using photoaffinity labeling. Vannvosova, E. L.; Gandiatko, A. V.; Gaenko, G. P.; Pazynina, G. V.; Bovin, N. V.; Molotkovsky, Jul. G. (Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, Russian Academy of Sciences, GSP Moscow, 117997, Russia). Bioorganicheskaya Khimiya, 22(4), 308-321 (Russian) 2005. CODEN: BIKHED. ISSN: 0233-4755. Publisher: Izdatel'stvo Nauka.

AB Earlier, we have used phenomenon of the tumor cell lectins' overexpression for the targeted delivery of liposomes loaded with antitumor agents, to malignant cells in vitro and in vivo with the help of lipophilic glycoconjugates embedded in the liposome bilayer and bearing carbohydrate determinants (vectors). To study the vector liposome binding to tumor cells, and identify specific receptors, we have carried out a series of expts. In vitro on photoaffinity labeling of melanoma M3 cells by liposomes bearing neoglycolipid probes with determinants trisaccharide A (I) and tetrasaccharide Sialyl Lewis X (II); promyeloid cells HL-60 were treated analogously by photoactive liposomes with tilsarchatide sulfate Lewis A (III). The probes are conjugates of glycosides and rac-1,2-dioleoylglycerol connected via oligoethylene glycol spacer (of 9-16 units), and have the carbene-generating diazocyclopentadien-2-ylcarbonyl (Dcp) group bearing (125I) label in close proximity to carbohydrate moiety. To detect the carbohydrate determinant-receptor(s) binding just on the surface of tumor cells, short incubation times (5-10 min) in the presence of increasing concns. of free carbohydrates were used. After photolysis and organic solvent delipidation, cell lysates were subjected to PAGE with subsequent autoradiog. Radiolabeling of a number of bands corresponding to proteins with various mol. weight was detected, the labeling profiles differ substantially for different probes and cells. In spite of careful delipidation before SDS-PAGE, the radiolabeling patterns were complicated by the background of non-covalent bound glycolipid probes or products of their lipid-lipid crosslinking. To take into account the non-specific binding, photoaffinity labeling by liposomes bearing (125I)-Dcp probe with inactive pentaol aminocyclite was performed. Detailed anal. of radioactive bands on the phosphorams allowed us to reveal, after subtraction of non-specific and background labelling, the following probe-binding proteins on the M3 cells with probe (I) - minor protein of ~18 kD weight; with probe (II) - proteins of .apprx.43, .apprx.60 (maximal), .apprx.64 and .apprx.80 kD weight; on the HL-60 cells with probe (III) - proteins of .apprx.36, .apprx.43, .apprx.48, .apprx.54, .apprx.66 kD, and in zone 75-85 kD. Comparison of our results with data obtained by others allows to suppose that detected receptors mediating the process of interaction with the vector liposomes may be attributed to some known lectins of mammalian cells.

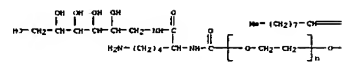
IT 875876-84-9

L34 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
RL: ANU (Analytical role, unclassified); ANST (Analytical study)
(interaction of tumor cell lectins by using photoaffinity labeling by liposomes bearing neoglycolipid probes)

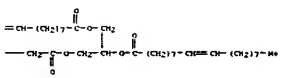
RN 875876-84-9 CAPLUS

CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-[2-[2,3-bis[[(9Z)-1-oxo-9-octadecenyl]oxy]propoxy]-2-oxoethoxy]-, ester with 1-[[(2S)-6-amino-2-(carboxyamino)-1-oxohexyl]amino]-1-deoxy-D-iditol(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



=> d cbib abs hitstr 1-7

L34 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
2005:996385 Document No. 144:208373 Detection of the tumor cell lectins by using photoaffinity labeling. Vetvicka, V. L.; Gantchenko, A. V.; Gaenko, G. P.; Pazynina, G. V.; Bovin, N. V.; Molotkovsky, Jul. G. (Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, Russian Academy of Sciences, GSP Moscow, 117997, Russia). Biokhimicheskie Metody, 22(4), 308-321 (Russian) 2005. CODEN: BIMEE5. ISSN: 0233-4755. Publisher: Izdatel'stvo Nauka.

AB Earlier, we have used phenomenon of the tumor cell lectins' overexpression for the targeted delivery of liposomes loaded with antitumor agents, to malignant cells in vitro and in vivo with the help of lipophilic glycoconjugates embedded in the liposome bilayer and bearing carbohydrate determinants (vectors). To study the vector liposome binding to tumor cells, and identify specific receptors, we have carried out a series of exptls. in vitro on photoaffinity labeling of melanoma M3 cells by liposomes bearing neoglycolipid probes with determinants trisaccharide A (I) and tetrasaccharide sialyl Lewis X (II); promyeloid cells HL-60 were treated analogously by photoaffine liposomes with trisaccharide substrate Lewis A (III). The probes are conjugates of glycosides and rac-1,2-dioleoylglycerol connected via oligoethylene glycol spacer (of 9-16 units), and have the carbene-generating diazocyclohexylsalen-2-ylcarbonyl (Dcp) group bearing (125I) label in close proximity to carbohydrate moiety. To detect the carbohydrate determinant-receptor(s) binding just on the surface of tumor cells, short incubation times (5-10 min) in the presence of increasing concns. of free carbohydrates were used. After photolysis and organic solvent delipidation, cell lysates were subjected to PAGE with subsequent autoradiog. Radiolabelling of a number of bands corresponding to proteins with various mol. weight was detected, the labeling profiles differ substantially for different probes and cells. In spite of careful delipidation before SDS-PAGE, the radiolabeling patterns were complicated by the background of non-covalent bound glycolipid probes or products of their lipid-lipid crosslinking. To take into account the non-specific binding, photoaffinity labeling by liposomes bearing (125I)-Dcp probe with inactive pentasaccharide was performed. Detailed anal. of radioactive bands on the photograms allowed us to reveal, after subtraction of non-specific and background labeling, the following probe-binding proteins on the M3 cells with probe (I) - minor protein of ~18 KD weight; with probe (II) - proteins of ~approx.43, ~approx.60 (maximal), ~approx.64 and ~approx.80 KD weight; on the HL-60 cells with probe (III) - proteins of ~approx.36, ~approx.43, ~approx.48, ~approx.54, ~approx.66 KD, and in zone 75-85 KD. Comparison of our results with data obtained by others allows to suggest that detected receptors mediating the process of interaction with the vector liposomes may be attributed to some known lectins of mammalian cells.

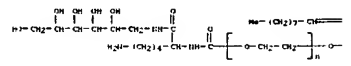
IT 875876-84-9

L34 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
PLI APU (Analytical role, unclassified); ANST (Analytical study)
(detection of tumor cell lectins by using photoaffinity labeling by liposomes bearing neoglycolipid probes)

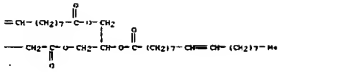
RN 875876-84-9 CAPLUS

CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-[2-[2,3-bis[[(9Z)-1-oxo-9-octadecenyl]oxy]propyl]-2-oxoethoxy]-, ester with 1-[[(2S)-6-amino-2-(carboxyamino)-1-oxohexyl]amino]-1-deoxy-D-iditol (9CI) (CA INDEX NAME)

PAGE 1-A

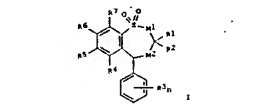


PAGE 1-B

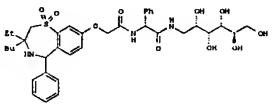


L34 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
2004:740309 Document No. 141:260784 Preparation of benzothiazepine and benzothiepine derivatives as ileal bile acid transport (IBAT) inhibitors. Starke, Ingemar; Alenalv, Suzanne; Hakansson, Mats Peter; Dahlstrom, Mikael Ulf Johan; Pontren, Stig Jonas; Lemurell, Malin Anitas Wallberg, Andreas Christer (AstraZeneca AB, Swed.; AstraZeneca UK Limited). PCT Int. Appl. WO 2004078130 A1 20040916, 77 pp. DESIGNATED STATE(S): W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: wo 2004-GB655 20040223. PRIORITY: GB 2003-4194 20030225.

GI



I



II

AB Title compds. represented by the formula I [wherein R1, R2 = H, alkyl, alkenyl; R3 = halo, nitro, cyano, amino, etc.; R4, R6 = independently H, hydroxy, (un)substituted carbamoylalkyloxy, etc.; R5, R7 = independently H, halo, mercapto, alkenyl, etc.; M1, M2 = independently (unsubstituted carbon or amino; n = 0-5] and pharmaceutically acceptable salts, solvates, solvates of such a salt or a prodrug thereof] were prepared as ileal bile acid transport (IBAT) inhibitors. For example, reaction of (±)-trans-1,1-dioxo-3-ethyl-3-methyl-5-phenyl-8-[(carboxymethoxy)-2,3,4,5-tetrahydro-1,4-benzothiazepine with (9S-4-[N'-[2-(9S)-3-(9)-4-(S)-5-(9)-2,3,4,5,6-pentahydroxyhexyl](carbamoyl)benzylamine gave II. Thus, I and

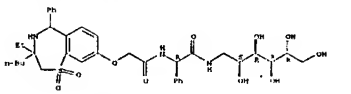
L34 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
their pharmaceutical compns. are useful as ileal bile acid transport (IBAT) inhibitors for the treatment of hyperlipidemia (no data).

IT 753010-67-2P 753010-67-2P 753486-44-1P 753486-46-3P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzothiazepine and benzothiepine derivs. as ileal bile acid transport (IBAT) inhibitors)

RN 753010-61-6 CAPLUS

CN D-Glucitol, 1-[[(2R)-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]amino](phenylacetyl)amino]-1-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

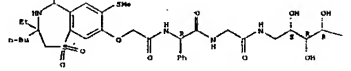


RN 753010-67-2 CAPLUS

CN D-Glucitol, 1-[[(2R)-N-[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,4-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl]glycyl]amino]-1-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

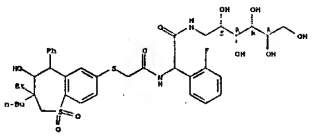


L34 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

PAGE 1-B

RN 753486-44-1 CAPLUS
CN D-Glucitol, 1-[[[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-5-phenyl-1-benzothiepin-7-yl)thio]acetyl]amino](2-fluorophenyl)acetyl]amino]-1-deoxy- (9CI) (CA INDEX NAME)

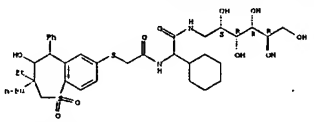
Absolute stereochemistry.



RN 753486-46-3 CAPLUS
CN D-Glucitol, 1-[[[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-4-hydroxy-1,1-dioxido-5-phenyl-1-benzothiepin-7-yl)thio]acetyl]amino]cyclohexylacetyl]amino]-1-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

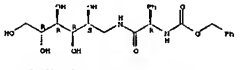
L34 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



IT 753010-64-9P 753010-65-0P
RL: ACT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of benzothiazepine and benzothiepine derivs. as ileal bile acid transport (IBAT) inhibitors)

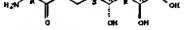
RN 753010-64-9 CAPLUS
CN D-Glucitol, 1-deoxy-1-[[(2R)-phenyl[[phenylmethoxy)carbonyl]amino]acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



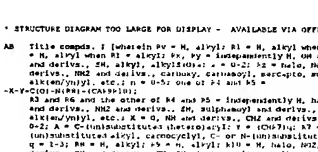
RN 753010-65-0 CAPLUS
CN D-Glucitol, 1-[[(2R)-aminophenylacetyl]amino]-1-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L34 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
2003:875267 Document No. 139:356761 Preparation of 1,1-dioxo-5-phenyl-2,3,4,5-tetrahydro-1,2,5-benzothiadiazepinesas ileal bile acid transport inhibitors for treatment of hyperlipidemia. Starke, Ingmar; Gahlstrom, Mikael Ulf Johan; Holdheim, Hans Peter; Alenius, Suzanne; Wallberg, Anders Christer; Hoglund, Stig; Jonas (Astrazeneca Ab, Swed.; Astrazeneca Uk Limited). PCT Int. Appl. WO 2003081232 A2 20031002, 71 pp.
DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GH, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SH, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2003-GB1742 20030423. PRIORITY: GB 2002-9487 20020425.

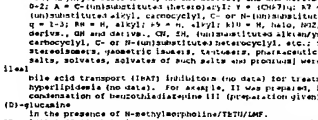
GI



* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [wherein R9 = H, alkyl; R1 = H, alkyl when R2 = alkyl; R2 = H, alkyl when R1 = alkyl; R4, R5 = independently H, OH and derivs., NH2 and derivs., SH, alkyl, alkylsulfonyl; n = 0-2; R3 = Hale, NO2, CN, OH and derivs., NH2 and derivs., carboxy, carboxyl, mercapto, sulphamoyl, alk(en/yn)yl, etc.; n = 0-5; one of R3 and R5 = -X-Y-C(O)-N(R8)-(CA99191); R3 and R6 and the other of R4 and R5 = independently H, halo, NO2, CN, OH and derivs., NH2 and derivs., SH, sulphamoyl and derivs., (un)substituted alk(en/yn)yl, etc.; X = O, NH and derivs., CH2 and derivs., S(O)n; n = 0-2; A = C-(un)substituted (hetero)cyclyl; Y = (CH2)q; R7 = H, (un)substituted alkyl, carbocyclyl, C- or N-(un)substituted heterocyclyl; q = 1-3; R8 = H, alkyl; R9 = H, alkyl; R10 = H, halo, NO2, NH2 and derivs., OH and derivs., CN, SH, (un)substituted alk(en/yn)yl, carbocyclyl, C- or N-(un)substituted heterocyclyl, etc.; their stereoisomers, geometric isomers, tautomers, pharmaceutically acceptable salts, solvates, solvates of such salts and prodrugs] were prepared as ileal bile acid transport (IBAT) inhibitors (no data) for treatment of hyperlipidemia (no data). For example, II was prepared, in 59% yield, by condensation of benzothiadiazepine III (preparation given) with (D)-glucamine in the presence of N-methylmorpholine/TBTU/DMF.

IT 549501-83-9, 1,1-Dioxo-3,3-dimethyl-5-phenyl-7-methylthio-8-N-[(R)-N-[N-[2-(S)-3-[(R)-1-(N)-5-(S)-2,3,4,5,6-pentahydroxyhexyl]carbamoyl]-4-hydroxybenzyl]carbamoylmethoxy]-2,3,4,5-tetrahydro-1,2,5-benzothiadiazepine 549501-84-0, 1,1-Dioxo-3,3-dibutyl-5-phenyl-7-methylthio-8-[N-[(R)-N-[2-(S)-3-

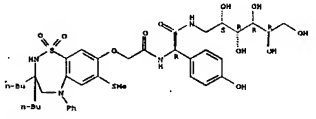


(R)-4-(R)-5-(R)-2,3,4,5,6-pentahydroxyhexyl]carbamoyl]benzyl]carbamoylmethoxy]-2,3,4,5-tetrahydro-1,2,5-benzothiadiazepine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological activity); PREP (Preparation); USES (Uses)
(ileal bile acid transport inhibitor; preparation of benzothiadiazepines as ileal bile acid transport inhibitors for treatment of hyperlipidemia)

L34 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

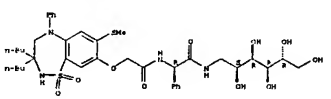
RN 549501-83-9 CAPLUS
CN D-Glucitol, 1-deoxy-1-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,2,5-benzothiadiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



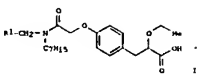
RN 549501-84-0 CAPLUS
CN D-Glucitol, 1-deoxy-1-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,2,5-benzothiadiazepin-8-yl]oxy]acetyl]amino](phenylacetyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L34 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
2003:491169 Document No. 139:69054 Preparation of substituted phenylpropionic acid derivatives as agonists to human peroxisome proliferator-activated receptor alpha (PPAR). Alstermark Linstedt, Eva-Lotte; Olsson, Anna Christina; Li, Lanna (Astrazeneca Ab, Swed.; Astrazeneca Uk Limited). PCT Int. Appl. WO 2003051822 A1 20030626, 43 pp.
DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, EA, EE, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SH, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-GB5714 20021218.
PRIORITY: SE 2001-4334 20011219.

GI



AB The present invention provides the S enantiomer of a compound of formula (I)

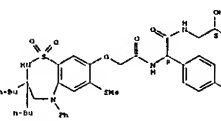
(wherein R1 represents 2,4-difluorophenyl or cyclohexyl) as well as pharmaceutically acceptable salts, solvates, crystalline forms and prodrugs thereof, processes for preparing such compds., their use in treating clin. conditions including lipid disorders (dyslipidemias) whether or not associated with insulin resistance, methods for their therapeutic use, and pharmaceutical compns. containing them. Thus, to a solution of (4-((2S)-2,3-diethoxy-3-oxopropyl)phenoxy)acetic acid (0.108 g), 3.6 mL CH2Cl2 were added N-(cyclohexylmethyl)-N-heptylamine hydrochloride (0.090 g) and HOAT (0.058 g) followed by 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride (0.070 g) and the reaction mixture was stirred at room temperature overnight to give, after workup and silica gel chromatogr., Et (2S)-3-(4-[2-[(cyclohexylmethyl)(heptyl)amino]-2-oxoethoxy]phenyl)-2-ethoxypropanoate, which (0.031 g) was saponified with LiOH in aqueous THF at room temperature overnight and acidified with aqueous 2 M HCl to give (2S)-3-(4-[2-[(cyclohexylmethyl)(heptyl)amino]-2-oxoethoxy]phenyl)-2-ethoxypropanoic acid. The compds. I had EC50 of less than 0.5 mmol/L

L34 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
For PPARα and preferred compds. have EC50 of less than 0.05 μmol/L for PPARα. They were more potent with respect to PPARα than with respect to PPARγ.

IT 549501-83-9 549501-84-0
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ileal bile acid transport system (IBAT) inhibitor, drug containing; preparation of substituted phenylpropionic acid derivs. as agonists to human peroxisome proliferator-activated receptor alpha (PPAR) for treating lipid disorders)

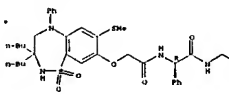
RN 549501-83-9 CAPLUS
CN D-Glucitol, 1-deoxy-1-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,2,5-benzothiadiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



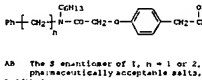
RN 549501-84-0 CAPLUS
CN D-Glucitol, 1-deoxy-1-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,2,5-benzothiadiazepin-8-yl]oxy]acetyl]amino](phenylacetyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L34 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
2003:491168 Document No. 139:69049 Preparation of substituted phenylpropionic acid derivatives as agonists to human peroxisome proliferator-activated receptor alpha (PPAR). Alstermark Linstedt, Eva-Lotte; Olsson, Anna Christina; Li, Lanna (Astrazeneca Ab, Swed.; Astrazeneca Uk Limited). PCT Int. Appl. WO 2003051821 A1 20030626, 40 pp.
DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, EA, EE, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SH, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-GB5718 20021218.
PRIORITY: SE 2001-4334 20011219.

GI



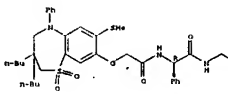
AB The S enantiomer of I, n = 1 or 2, (CGH13 = hexyl) as well as their pharmaceutically acceptable salts, solvates, crystalline forms and prodrugs are synthesized using various solvents and in presence of charcoal-supported palladium catalyst. The utility of these compds. in clin. conditions such as lipid disorders (dyslipidemias) whether or not associated with insulin resistance and therapeutic and other pharmaceutical activities is also investigated. For example, (2S)-3-(4-[2-(hexyl(hexyl)amino)-2-oxoethoxy]phenyl)2-ethoxypropionic acid was prepared in 54% yield via reaction of (2S)-2-ethoxy-3-(4-hydroxyphenyl)propanoate and benzyl bromoacetate.

IT 501054-56-2P 549501-83-9P 549501-84-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of enantiomeric substituted phenylpropionic acid derivs. as agonists to human peroxisome proliferator-activated receptor)

RN 501054-56-2 CAPLUS
CN D-Glucitol, 1-deoxy-1-[[(2R)-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

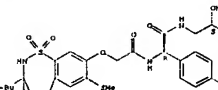
Absolute stereochemistry.

L34 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



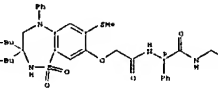
RN 549501-83-9 CAPLUS
CN D-Glucitol, 1-deoxy-1-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,2,5-benzothiadiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

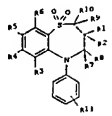


RN 549501-84-0 CAPLUS
CN D-Glucitol, 1-deoxy-1-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,2,5-benzothiadiazepin-8-yl]oxy]acetyl]amino](phenylacetyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



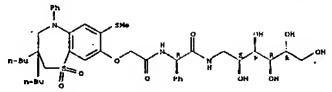
L34 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
2003:202631 Document No. 138:221607 Preparation of benzothiazepine derivatives for potential use as ileal bile acid transport inhibitors for the treatment of hyperlipidaemia. Starrett, Ingemar; Dahlstrom, Mikael Ulf Johan; Blomberg, David; Alentale, Suzanne; Nordmeyer, Peter; Wallberg, Andreas Christer; Rostrom, Bill; Jonas (Astrazeneca AB, Sweden; Astrazeneca UK Limited). PCT Int. Appl. WO 2003020710 A1 20030313, 92 pp.
DESIGNATED
STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG. (Diphenyl).
APPLICATION: WO 2002-GB3943 20020830. PRIORITY: GB 2001-21237 20010904.
GI



I

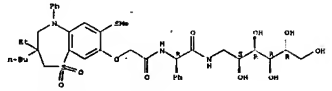
AB Benzothiazepines I, wherein R1 and R2 are selected from hydrogen or alkyl and the other is selected from alkyl; R3 and R6 and the other of R4 and R5 are independently selected from hydroxyan, halo, nitro, cyano, hydroxy, amino, carboxy, carbamoyl, mercapto, sulfamoyl, alkyl, alkenyl, alkynyl, alkoxy, alkanoyl, alkanoyloxy, N-(alkyl)amino, N,N-(alkyl)2amino, alkenoylamino, N-(alkyl)carbamoyl, N,N-(alkyl)2carbamoyl, alkyl-S(O)a wherein a is 0-2, alkoxycarbonyl, N-(alkyl)sulfamoyl and N,N-(alkyl)2sulfamoyl; wherein R3 and R6 and the other of R4 and R5 may be optionally substituted on carbon; R7 and R8 are independently selected from H or alkyl, or one of R7 and R8 is N or alkyl and the other is hydroxy or alkoxy; R9 and R10 are independently selected from H or alkyl; R11 is (R1)v; R2 is selected from halo, nitro, cyano, hydroxy, amino, carboxy, carbamoyl, mercapto, sulfamoyl, alkyl, alkenyl, alkynyl, alkoxy, alkanoyl, alkanoyloxy, N-(alkyl)amino, N,N-(alkyl)2amino, alkanoylamino, N-(alkyl)carbamoyl, N,N-(alkyl)2carbamoyl, alkyl-S(O)a wherein a is 0 to 2, alkoxycarbonyl, N-(alkyl)sulfamoyl and N,N-(alkyl)2sulfamoyl; v is 0-5; variable groups are as defined within; pharmaceutically acceptable salts,

L34 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



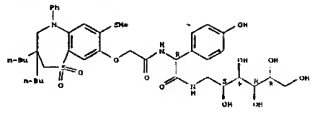
RN 501098-57-3 CAPLUS
CN D-Glucitol, 1-[(2R)-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]-1-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 501098-84-6 CAPLUS
CN D-Glucitol, 1-deoxy-1-[[(2R)-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

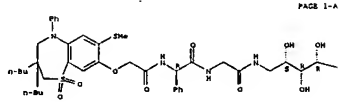


RN 501098-85-7 CAPLUS
CN D-Glucitol, 1-deoxy-1-[[(2R)-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]methylamino]-(9CI) (CA INDEX NAME)

L34 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
solvates, solvates of such salts and prodrugs thereof and their use as ileal bile acid transport (IBAT) inhibitors for the treatment of hyperlipidaemia. Processes for their manuf. and pharmaceutical compns. containing them are also described. Thus, 1,1-dioxo-3,3-dibutyl-5-phenyl-7-methylthio-8-[N-[(R)-N'-methyl-N'-(2-[S]-3-(S)-4-(3-5-(R)-2,3,4,5,6-pentahydroxyhexyl)carbamoyl]benzyl)carbamoylmethoxy]-2,3,4,5-tetrahydro-1,5-benzothiazepine was prepd. and tested as ileal bile acid transport inhibitor and for the treatment of hyperlipidaemia (no data).
IT 501098-47-1P 501098-56-2P 501098-57-3P
501098-84-6P 501098-85-7P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of benzothiazepine derivs. used as ileal bile acid transport inhibitors for treatment of hyperlipidemia)
RN 501098-47-1 CAPLUS
CN D-Glucitol, 1-deoxy-1-[[(2R)-N-[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



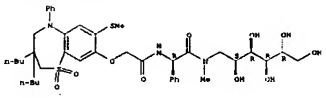
PAGE 1-B

RN 501098-56-2 CAPLUS
CN D-Glucitol, 1-deoxy-1-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

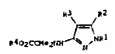
Absolute stereochemistry.

L34 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Absolute stereochemistry.

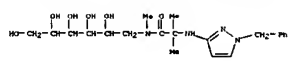


L34 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
1991:408791 Document No. 115:8791 Preparation of 1-substituted 3-(1-carboxy-1-methylethylamino)pyrazoles for regulation of serum lipid levels and bloodbrane permeability. Dorn, Helmut; Ozegowski, Buediger (Akademie der Wissenschaften der DDR, Germany). Ger. (East) DD 296761 A5 19910131, 20 pp. (German). CODEN: GEXXA8.
APPLICATION: DD 1988-315763 19880513.
GI



I

AB Title compds. [I; R1 = H, Me, (Cl-substituted) Ph, PhCH2; R2 = H, Me; R3 = H, Me, Cl, Br, CO2Me, CO2Et, CO2H, CONH2; R4 = H, Na, K, NH4, MeN2CH2CH(OH)4CH2OH], useful for regulation of serum lipid levels and bloodbrane permeability (no data), were prepared by treatment of the corresponding 3-aminopyrazoles with Me2C(OH)CCl3 under phase-transfer conditions in the presence of alkali hydroxide, followed by optional cation exchange reactions. Thus, a mixture of 3-amino-1-benzylpyrazole, Me2C(OH)CCl3, polyethylene glycol 400, and CH2Cl2 at 5-10° was treated with aqueous NaOH over 4-7 h with vigorous stirring; the mixture was stirred a further 25 h followed by acidification to give 6%-N-(1 (R1 = PhCH2, R2 = R3 = R4 = H).
IT 134241-11-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as regulator of serum lipid levels and bloodbrane permeability)
RN 134241-11-5 CAPLUS
CN Healtol, 1-deoxy-1-[methyl[2-methyl-1-oxo-2-[(1-(phenylmethyl)-1H-pyrazol-3-yl]amino]propyl]amino]- (9CI) (CA INDEX NAME)



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FULL ESTIMATED COST                                    51.35     746.63

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